



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Agriculture													
N2O													
Energy N2O													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	18,608	17,925	19,588	19,072	19,405	20,862	22,167	22,802	24,096	21,721	18,612	17,191	22,088
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	1	0	1
subtotal	18,608	17,925	19,588	19,072	19,405	20,862	22,167	22,802	24,096	21,721	18,613	17,191	22,089
Controlled Burning N2O	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Residues N2O	955,666	1,237,865	1,098,786	1,433,671	1,242,554	1,115,728	874,117	1,736,119	1,512,477	1,618,779	1,459,164	1,714,115	1,571,159
Cultivated Histosols	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293
Deposition N2O	-	614,957	614,957	639,639	610,598	518,797	594,765	735,472	637,855	608,398	467,213	488,799	456,327
Feedlot N2O	1,118,612	1,126,691	1,136,115	1,203,672	1,282,749	1,270,596	1,233,327	1,121,598	1,069,180	1,095,885	1,139,317	1,135,748	1,097,045
Fertilizer N2O	1,417,155	1,971,440	1,749,113	2,174,780	2,156,442	2,206,531	2,322,650	2,483,021	2,916,036	2,564,792	3,109,410	2,872,972	1,952,872
Legumes N2O	-	-	-	-	-	-	-	-	-	-	-	-	-
Manure Soil Applications N2O	524,395	529,644	523,760	531,969	534,668	517,633	529,963	535,285	510,938	543,819	566,437	560,191	559,414
Runoff N2O	651,874	841,263	758,623	931,595	885,074	863,976	838,514	1,069,746	1,111,377	1,063,663	1,155,377	1,158,137	918,775
Wildfire N2O	5,537	8,356	8,705	39,018	7,565	12,125	33,710	39,195	3,469	1,864	31,291	11,398	4,134
subtotal	4,993,138	6,649,434	6,210,940	7,274,709	7,040,349	6,827,541	6,750,505	8,044,529	8,086,720	7,820,213	8,248,115	8,259,845	6,883,107
CH4													
Energy CH4													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	9,504	9,154	9,889	9,638	9,891	10,677	11,200	11,469	12,233	11,672	10,124	9,028	11,761
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	1	0	0
subtotal	9,504	9,154	9,889	9,638	9,891	10,677	11,200	11,469	12,233	11,672	10,125	9,028	11,761
Manure CH4	253,022	265,955	279,662	306,540	377,191	395,106	467,319	527,265	590,079	705,977	818,005	845,082	877,080
Ruminants CH4	6,992,907	6,991,990	6,986,213	7,127,956	7,342,618	7,320,036	7,120,171	6,649,969	6,330,280	6,419,242	6,615,677	6,708,427	6,604,513
Wild Rice CH4	22,288	29,916	37,545	45,173	52,802	60,431	68,059	75,688	82,471	96,216	109,961	109,961	109,961
Wildfire CH4	27,335	41,255	42,978	192,632	37,348	59,863	166,427	193,504	17,125	9,201	154,482	56,273	20,408

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

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Key:

Economic Sectors
Activity: Energy
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Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
subtotal	7,305,056	7,338,271	7,356,287	7,681,939	7,819,849	7,846,112	7,833,176	7,457,895	7,032,188	7,242,308	7,708,250	7,728,772	7,623,724
CO2													
Energy CO2													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	2,809,123	2,709,512	2,924,435	2,867,633	2,945,519	3,196,754	3,306,175	3,382,039	3,648,725	3,674,668	3,223,807	2,814,366	3,691,742
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	2,809,123	2,709,512	2,924,435	2,867,633	2,945,519	3,196,754	3,306,175	3,382,039	3,648,725	3,674,668	3,223,807	2,814,366	3,691,742
Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
Erosion CO2	82,505	90,769	84,442	97,274	98,530	101,871	105,568	108,135	108,206	114,393	120,895	124,376	131,228
Histosol Cultivation CO2	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284
Liming of Fields CO2	-	57,432	55,049	55,526	93,179	79,595	142,509	102,711	132,261	91,272	125,589	142,747	111,529
Mineral Wetlands Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
Urea Applications CO2	3,103	18,033	24,817	24,676	50,420	61,631	116,147	124,520	160,116	157,501	131,679	126,131	106,936
subtotal	8,053,016	8,034,031	8,247,028	8,203,394	8,345,933	8,598,136	8,828,684	8,875,689	9,207,592	9,196,118	8,760,254	8,365,904	9,199,719
CO													
Energy CO	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy CO as CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	20,351,210	22,021,737	21,814,255	23,160,043	23,206,131	23,271,788	23,412,365	24,378,112	24,326,500	24,258,639	24,716,619	24,354,522	23,706,551
Commercial													
N2O													
Energy													
Coal	5,021	4,676	2,264	2,202	2,906	1,932	1,489	1,098	1,941	2,619	1,730	1,113	1,360
Oil	7,365	7,105	7,950	7,159	6,726	6,620	11,441	6,770	6,840	5,796	4,622	2,995	5,147
Natural gas	2,394	2,389	2,502	2,502	2,827	2,803	2,399	2,111	2,523	1,879	1,980	2,071	2,326
Other	233	216	223	195	209	237	258	294	374	477	404	355	411



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Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
subtotal	15,012	14,385	12,940	12,058	12,669	11,592	15,588	10,272	11,677	10,771	8,734	6,533	9,245
Medical Uses	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	15,012	14,385	12,940	12,058	12,669	11,592	15,588	10,272	11,677	10,771	8,734	6,533	9,245
CH4													
Energy													
Coal	2,808	2,615	1,266	1,231	1,626	1,081	833	614	1,086	1,465	967	622	761
Oil	10,669	10,331	11,555	10,409	9,771	9,601	16,347	9,786	9,814	8,289	6,628	4,337	7,354
Natural gas	10,040	10,021	10,495	10,493	11,860	11,756	10,063	8,853	10,582	7,880	8,303	8,687	9,759
Other	1,469	1,358	1,404	1,230	1,317	1,491	1,623	1,848	2,350	3,003	2,537	2,231	2,587
subtotal	24,986	24,326	24,721	23,364	24,574	23,929	28,867	21,101	23,832	20,637	18,435	15,877	20,460
subtotal	24,986	24,326	24,721	23,364	24,574	23,929	28,867	21,101	23,832	20,637	18,435	15,877	20,460
CO2													
Energy													
Coal	1,049,775	977,597	473,479	460,371	607,708	404,014	311,349	229,532	405,875	547,550	362,395	238,329	292,176
Oil	3,207,723	3,119,625	3,498,741	3,155,164	2,955,847	2,885,348	4,810,339	2,935,464	2,915,450	2,446,521	1,984,835	1,296,201	2,163,837
Natural gas	4,472,663	4,464,253	4,675,354	4,674,420	5,283,340	5,237,041	4,482,958	3,943,895	4,714,120	3,510,422	3,698,909	3,869,818	4,347,291
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	8,730,161	8,561,475	8,647,575	8,289,956	8,846,895	8,526,403	9,604,646	7,108,891	8,035,445	6,504,493	6,046,138	5,404,348	6,803,304
Limestone use	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvent uses	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	8,730,161	8,561,475	8,647,575	8,289,956	8,846,895	8,526,403	9,604,646	7,108,891	8,035,445	6,504,493	6,046,138	5,404,348	6,803,304
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													

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Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	8,770,159	8,600,186	8,685,235	8,325,377	8,884,139	8,561,923	9,649,101	7,140,264	8,070,954	6,535,901	6,073,307	5,426,757	6,833,009
Electricity Generation													
N2O													
Energy													
Coal	63,536	60,221	40,606	44,391	50,728	48,000	56,538	63,902	57,235	54,309	65,153	65,658	56,229
Oil	7,250	5,874	8,545	13,559	12,838	9,375	9,195	9,603	9,828	7,197	21,652	1,256	233
Natural gas	16,083	11,109	15,825	17,940	12,313	7,473	4,516	2,057	886	2,754	4,101	2,260	1,077
Other	398	379	416	404	96	23	7	11	60	52	73	-	89
subtotal	87,267	77,582	65,392	76,293	75,975	64,870	70,257	75,573	68,009	64,311	90,979	69,175	57,628
Energy-Net Electricity Imports	18,256	20,826	14,351	16,468	12,384	8,397	4,440	(6,880)	2,737	10,639	11,560	14,666	17,914
subtotal	105,523	98,409	79,743	92,761	88,359	73,268	74,697	68,693	70,746	74,950	102,539	83,840	75,542
CH4													
Energy													
Coal	6,663	6,315	1,722	1,770	2,199	2,080	2,951	3,733	3,733	3,388	3,878	3,730	3,209
Oil	396	375	620	589	520	418	519	444	580	321	285	40	27
Natural gas	1,349	932	12,318	21,488	12,567	9,543	7,797	6,673	2,153	5,492	4,790	3,420	1,560
Other	53	50	55	53	13	3	1	1	8	7	10	-	12
subtotal	8,461	7,672	14,715	23,901	15,298	12,045	11,268	10,852	6,474	9,207	8,963	7,191	4,808
Hydroelectric	2,423	2,423	2,423	2,519	2,519	2,519	2,519	2,519	2,519	2,519	2,519	2,519	2,519
Coal storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	2,277	2,710	3,761	5,703	2,904	1,885	871	(1,217)	362	1,940	1,459	2,059	2,277
subtotal	13,160	12,805	20,898	32,122	20,721	16,449	14,658	12,154	9,355	13,666	12,941	11,769	9,604

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Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
CO2													
Energy													
Coal	13,124,386	11,904,185	12,588,858	13,837,622	15,462,801	14,520,090	19,021,986	24,008,349	22,851,391	21,013,685	24,787,344	23,144,118	20,475,310
Oil	808,479	701,720	1,127,736	1,140,828	953,994	817,933	958,873	988,482	1,146,353	647,310	758,534	108,640	63,750
Natural gas	3,442,984	2,497,975	3,008,307	3,334,615	2,212,724	1,271,137	734,724	288,281	83,094	402,624	626,884	321,653	190,589
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	17,375,849	15,103,880	16,724,900	18,313,064	18,629,518	16,609,160	20,715,583	25,285,112	24,080,838	22,063,619	26,172,763	23,574,412	20,729,649
FGD	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	3,774,774	4,233,638	3,818,550	4,102,788	3,147,811	2,236,511	1,353,091	(2,366,165)	994,757	3,756,998	3,413,224	5,142,383	6,655,893
subtotal	21,150,622	19,337,519	20,543,451	22,415,852	21,777,329	18,845,671	22,068,674	22,918,947	25,075,595	25,820,617	29,585,987	28,716,795	27,385,542
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
SF6													
Energy	560,859.42	571,677.72	579,595.03	579,232.40	577,902.78	579,957.65	601,715.13	605,341.38	544,239.13	560,557.24	576,875.34	593,193.45	609,511.56



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Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Energy-Net Electricity Imports	117,330.65	153,462.18	127,199.70	125,028.58	94,197.92	75,072.96	38,024.02	(55,108.57)	21,905.77	92,729.28	73,296.58	125,761.14	189,466.14
subtotal	678,190.07	725,139.90	706,794.73	704,260.99	672,100.70	655,030.62	639,739.16	550,232.81	566,144.90	653,286.51	650,171.93	718,954.60	798,977.71
Total	21,947,495	20,173,872	21,350,887	23,244,997	22,558,510	19,590,418	22,797,768	23,550,027	25,721,841	26,562,520	30,351,638	29,531,359	28,269,666
Waste													
N2O													
Energy													
Associated Incinerator Fuels	-	-	-	-	-	-	-	-	-	-	-	-	-
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-steam	-	-	-	-	-	-	-	-	-	-	36	-	-
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	36	-	-
Waste Processing	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Operations (energy)	9	12	14	15	16	18	20	15	44	40	77	75	84
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Compost Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	1
MRF (energy)	-	-	-	-	-	-	-	-	-	-	5	5	5
RDF Processing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerator Ash Disposal (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	9	12	14	15	16	18	20	15	44	40	82	79	90
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	9	12	14	15	16	18	20	15	44	40	82	79	90
Natural Gas	-	-	-	-	-	-	-	-	-	-	36	-	-

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Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	9	12	14	15	16	18	20	15	44	40	118	79	90
Incinerated Waste													
Waste Sector RDF	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Sources													
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	2,860	2,871	2,866
Municipal Wastewater	89,483	91,427	91,535	92,371	90,568	91,513	94,940	94,101	94,428	85,148	83,833	86,734	85,666
Biosolids Land Application	6,090	6,185	6,154	6,171	6,013	6,038	7,482	7,387	7,369	9,270	15,516	24,205	23,847
MMSW Waste Composting	-	-	-	-	-	-	-	-	-	-	-	-	5,011
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	102,278	104,317	104,394	105,247	103,286	104,256	109,126	108,193	108,502	101,123	108,913	120,515	124,095
subtotal	102,287	104,329	104,407	105,262	103,301	104,274	109,146	108,209	108,546	101,163	109,031	120,594	124,185
CH4													
Energy													
Associated Incinerator Fuels	-	-	-	-	-	-	-	-	-	-	-	-	-
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-steam	-	-	-	-	-	-	-	-	-	-	3	-	-
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste
Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Distillate fuel oil-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	3	-	-
Waste Processing	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Operations (energy)	2	2	3	3	3	3	4	3	8	7	14	14	15
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Compost Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	0
MRF (energy)	-	-	-	-	-	-	-	-	-	-	1	1	1
RDF Processing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerator Ash Disposal (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	2	2	3	3	3	3	4	3	8	7	15	15	17
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	2	2	3	3	3	3	4	3	8	7	15	15	17
Natural Gas	-	-	-	-	-	-	-	-	-	-	3	-	-
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	2	2	3	3	3	3	4	3	8	7	18	15	17
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector RDF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375	24,375
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Municipal Wastewater	344,078	347,226	347,551	348,164	348,320	349,712	351,404	352,417	353,528	355,414	356,464	360,885	363,916
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
MMSW composting	-	-	-	-	-	-	-	-	-	-	-	-	6,196
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	2,349,247	2,476,818	2,604,205	2,734,329	2,865,706	2,994,880	3,126,114	3,256,595	3,376,414	3,571,124	3,754,703	4,020,801	4,245,723
Industrial Landfills	-	-	-	-	-	-	-	-	-	-	-	-	-
D/C Landfills	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	2,717,699	2,848,419	2,976,130	3,106,868	3,238,401	3,368,967	3,501,893	3,633,386	3,754,317	3,950,913	4,135,542	4,406,061	4,640,209
subtotal	2,717,701	2,848,421	2,976,133	3,106,871	3,238,404	3,368,971	3,501,896	3,633,389	3,754,325	3,950,920	4,135,560	4,406,075	4,640,226

CO2

Energy
Associated Incinerator Fuels
Bituminous coal
Natural gas-steam
Residual fuel oil
Waste oil
Waste solvent
Propane
Distillate fuel oil-steam
Natural gas-internal combustion engine
Distillate fuel oil-internal combustion engine
subtotal
Waste Processing
Landfill Operations (energy)
Yard Waste Preprocessing (energy)
MMSW Compost Preprocessing (energy)
MRF (energy)
RDF Processing (energy)
Incinerator Ash Disposal (energy)
Hazardous Waste (energy)
subtotal

-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	7,031	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	7,031	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,149	1,609	1,809	1,932	2,038	2,389	2,564	2,003	5,706	5,205	10,106	9,782	11,024	
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	152
-	-	-	-	-	-	-	-	-	-	-	605	597	612
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,149	1,609	1,809	1,932	2,038	2,389	2,564	2,003	5,706	5,205	10,711	10,379	11,788	



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste
Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	1,149	1,609	1,809	1,932	2,038	2,389	2,564	2,003	5,706	5,205	10,711	10,379	11,788
Natural Gas	-	-	-	-	-	-	-	-	-	-	7,031	-	-
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	1,149	1,609	1,809	1,932	2,038	2,389	2,564	2,003	5,706	5,205	17,741	10,379	11,788
Incinerated Waste													
Waste Sector RDF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808	37,808
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	29,028	29,139	29,090
Municipal Wastewater	-	-	-	-	-	-	-	-	-	-	-	-	-
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW composting	-	-	-	-	-	-	-	-	-	-	-	-	-
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
City Dumps	306,877	295,605	295,615	299,088	303,470	297,666	299,536	332,951	185,227	216,527	18,340	-	-
limestone use	-	-	-	-	-	-	-	-	-	-	-	-	-
Sequestration in deomition/conztruction landfills	-	-	-	-	-	-	-	-	-	-	-	(78,375)	(175,535)
other subtotal	344,685	333,413	333,423	336,896	341,278	335,474	337,344	370,759	223,035	254,335	85,176	(11,427)	(108,637)
subtotal	345,834	335,023	335,232	338,828	343,316	337,863	339,909	372,762	228,741	259,540	102,918	(1,049)	(96,849)
CO													
Energy													
Associated Incinerator Fuels													
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Wood	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Processing													
Landfill Operations (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Compost Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MRF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
RDF Processing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerator Ash Disposal (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste													
Waste Sector RDF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Other Sources													
LFG Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil Roasting	-	-	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Fossil CO Oxidation	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3,165,822	3,287,773	3,415,772	3,550,960	3,685,021	3,811,108	3,950,951	4,114,359	4,091,612	4,311,623	4,347,508	4,525,621	4,667,562
Residential													
N2O													
Energy													
Coal	942	772	723	511	339	277	286	228	190	151	145	93	92
Oil	10,374	10,907	11,404	11,000	10,147	9,659	11,631	11,059	10,831	8,726	7,306	5,975	7,673
Natural gas	3,181	3,198	3,351	3,202	3,531	3,577	3,296	3,126	3,322	3,488	3,215	2,978	3,373
Other	4,968	4,902	4,658	4,991	5,545	6,654	8,207	10,647	14,639	19,963	26,617	31,053	32,672
subtotal	19,465	19,778	20,136	19,704	19,563	20,167	23,420	25,060	28,983	32,327	37,283	40,099	43,810
Lawn Fertilizer	12,883	13,333	13,785	14,238	14,692	15,149	15,495	15,837	16,175	16,510	16,840	17,112	17,386
subtotal	32,348	33,112	33,921	33,942	34,256	35,316	38,915	40,897	45,158	48,837	54,123	57,212	61,196
CH4													
Energy													
Coal	15,813	12,945	12,129	8,575	5,694	4,643	4,798	3,830	3,192	2,533	2,428	1,563	1,540



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Oil	16,611	17,504	18,436	17,642	16,266	15,462	18,246	17,280	16,565	13,244	11,154	9,202	11,616
Natural gas	13,341	13,415	14,055	13,430	14,813	15,004	13,825	13,113	13,936	14,629	13,487	12,491	14,150
Other	31,261	30,843	29,308	31,401	34,890	41,868	51,637	66,989	92,110	125,604	167,472	195,384	205,572
subtotal	77,026	74,707	73,928	71,048	71,663	76,978	88,507	101,212	125,802	156,011	194,540	218,640	232,878
subtotal	77,026	74,707	73,928	71,048	71,663	76,978	88,507	101,212	125,802	156,011	194,540	218,640	232,878
CO2													
Energy													
Coal	197,054	161,318	151,151	106,854	70,953	57,865	59,794	47,723	39,777	31,572	30,251	19,961	19,721
Oil	5,597,548	5,912,638	6,271,006	5,957,264	5,489,420	5,212,314	6,033,497	5,692,377	5,341,713	4,238,797	3,591,170	2,988,815	3,707,213
Natural gas	5,943,149	5,975,913	6,261,258	5,982,715	6,598,740	6,683,710	6,158,891	5,841,690	6,207,952	6,516,926	6,008,718	5,565,690	6,308,206
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	11,737,752	12,049,868	12,683,415	12,046,833	12,159,113	11,953,890	12,252,183	11,581,790	11,589,442	10,787,294	9,630,139	8,574,467	10,035,140
Soaps, detergents, shampoos	-	-	-	-	-	-	-	-	-	-	-	-	-
Food additives	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon sequestration in housing units	-	(547,377)	(487,987)	(1,142,021)	(854,546)	(896,516)	(600,302)	(579,373)	(766,481)	(580,592)	655,965	(1,070,092)	(918,804)
subtotal	11,737,752	11,502,491	12,195,428	10,904,812	11,304,567	11,057,374	11,651,880	11,002,417	10,822,961	10,206,703	10,286,105	7,504,375	9,116,336
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFC-152a/HFC-134a													
Aerosol use	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFC-134a													
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11,847,126	11,610,310	12,303,277	11,009,802	11,410,486	11,169,667	11,779,303	11,144,526	10,993,921	10,411,551	10,534,768	7,780,227	9,410,410
Industrial													
N2O													
Energy													
Stationary source													
Coal	20,772	15,595	18,041	24,155	18,863	25,068.72	20,596	19,101	19,679	14,081	9,495	10,431	9,406
Oil	8,993	8,546	12,007	12,136	10,416	13,496.13	17,147	16,679	14,755	11,347	8,008	7,087	7,725
Natural gas	3,049	3,814	3,287	3,586	3,324	3,160.08	3,756	3,619	3,735	4,451	3,070	2,725	2,133
Other	11,467	12,384	13,417	15,301	15,601	15,400.84	16,451	15,034	20,318	20,651	5,838	30,404	28,772
subtotal	44,281	40,340	46,752	55,177	48,203	57,125.77	57,950	54,434	58,486	50,530	26,411	50,647	48,036
Off-highway vehicle													
Oil	6,920	7,503	7,846	7,424	6,287	9,232.70	9,219	8,604	8,624	3,892	2,500	1,709	2,131
Other	-	-	-	-	-	-	-	-	-	-	0	0	0

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
subtotal	6,920	7,503	7,846	7,424	6,287	9,232.70	9,219	8,604	8,624	3,892	2,500	1,709	2,131
subtotal	51,201	47,843	54,599	62,601	54,490	66,358	67,170	63,037	67,110	54,422	28,911	52,356	50,167
subtotal	51,201	47,843	54,599	62,601	54,490	66,358	67,170	63,037	67,110	54,422	28,911	52,356	50,167
CH4													
Energy													
Stationary source													
Coal	11,617	8,722	10,090	13,509	10,550	14,021	11,519	10,683	11,006	7,876	5,310	5,834	5,261
Oil	4,109	3,897	5,367	5,307	4,693	4,992	6,254	5,508	5,700	5,261	3,706	3,415	3,748
Natural gas	2,558	3,200	2,757	3,008	2,788	2,651	3,151	3,036	3,133	3,734	2,576	2,286	1,789
Other	7,215	7,792	8,442	9,627	9,816	9,690	10,351	9,459	12,784	12,994	2,279	19,130	18,103
subtotal	25,500	23,611	26,657	31,452	27,847	31,354	31,275	28,687	32,624	29,864	13,871	30,665	28,901
Off-highway vehicle													
Oil	3,808	4,154	4,339	4,108	3,463	1,701	1,699	1,586	1,590	720	463	317	397
Other	-	-	-	-	-	-	-	-	-	-	0	0	0
subtotal	3,808	4,154	4,339	4,108	3,463	1,701	1,699	1,586	1,590	720	463	317	397
subtotal	29,308	27,765	30,996	35,559	31,310	33,055	32,974	30,273	34,213	30,584	14,334	30,982	29,297
Coal storage	-	-	-	-	-	-	-	-	-	-	6,454	6,160	5,865
Oil Refining	-	-	-	-	-	-	-	-	-	-	-	-	23,284
Peat mining	-	-	-	-	7,299	4,744	9,489	10,219	7,299	7,664	8,211	9,124	8,941
Industrial wastewater treatment	63,981	75,479	76,926	76,842	76,753	76,970	79,599	84,694	84,646	81,049	68,109	78,353	81,574
subtotal	93,289	103,243	107,922	112,402	115,363	114,769	122,062	125,185	126,159	119,296	97,108	124,618	148,962
CO2													
Energy													
Coal	4,338,827	3,257,127	3,767,979	5,042,541	3,938,730	5,234,991	4,301,956	3,989,266	4,110,882	2,943,959	2,021,600	2,226,220	2,027,428
Oil	6,840,871	6,870,061	8,518,627	8,316,875	7,201,337	6,190,328	7,440,720	6,593,096	6,795,189	5,867,079	4,075,949	3,556,043	4,012,490
Natural gas	5,698,162	7,126,967	6,141,181	6,700,086	6,210,539	5,904,926	7,019,197	6,762,649	6,978,447	8,317,442	5,736,710	5,091,664	3,985,028
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	16,877,860	17,254,155	18,427,788	20,059,502	17,350,607	17,330,245	18,761,873	17,345,011	17,884,518	17,128,479	11,834,259	10,873,926	10,024,946
Taconite induration	981,306	933,888	967,517	1,177,988	1,155,893	1,151,145	1,145,437	740,550	1,405,867	1,554,222	1,238,749	1,403,565	665,689
Steel production	-	-	-	-	-	-	-	-	-	-	-	-	-



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Ammonia Manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-
Glass manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-
Peat Mining/Use	-	-	-	-	27,865	18,113	36,225	39,012	27,865	29,259	31,349	34,832	34,135
Industrial solvent release	-	-	-	-	-	-	-	-	-	-	-	-	-
Other industrial VOC and TRI releases	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	17,859,166	18,188,044	19,395,305	21,237,489	18,534,366	18,499,503	19,943,536	18,124,573	19,318,250	18,711,960	13,104,356	12,312,323	10,724,770
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	-	-	-	-	-	-	-	-	-	-	-	-	-
Other industrial process	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	-	-	-	-	-	-	-	-	-	-	-	-	-
Other industrial process	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFCs													
Industrial refrigeration													
Food processing													
Insulating foam manufacture													

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Boat buidling													
subtotal													
PFCs, HFCs, HFES													
Solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
PFCs													
Semiconductor Mfr	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
SF6													
Magnesium casting													
subtotal													
Total	18,003,657	18,339,130	19,557,825	21,412,492	18,704,218	18,680,631	20,132,768	18,312,795	19,511,519	18,885,678	13,230,376	12,489,297	10,923,898
Transportation													
N2O													
Passenger Cars	125,245	123,778	130,026	128,909	122,930	135,276	161,885	181,300	204,822	213,281	228,189	248,332	270,589
Light-Duty Trucks	18,317	19,005	21,246	23,229	24,635	30,030	41,587	53,108	60,538	66,454	75,092	81,243	87,118
Heavy-Duty Trucks	9,408	10,300	11,276	12,284	13,382	14,578	15,040	16,937	15,305	14,536	13,664	12,705	11,734
School Bus	992	1,107	1,296	1,307	1,435	1,523	1,509	1,555	1,728	1,876	1,828	1,666	1,508
Transit Bus	115	115	115	115	115	115	115	115	112	111	116	115	55
Motorcycle	234	274	365	423	370	426	474	417	694	673	824	782	738
RV	697	966	1,372	1,566	1,693	2,199	2,810	3,546	3,824	3,707	3,762	3,368	3,377
Other Bus	3	3	3	3	4	4	4	4	4	12	14	13	9
Railroad	7,181	5,857	6,269	7,491	7,642	7,409	6,841	5,247	5,424	8,001	6,403	5,454	6,382
Vessel Bunkering/Marine	1,542	1,569	2,102	3,367	3,643	4,016	3,684	2,199	3,761	2,430	5,460	4,034	2,844
Military and Other Off-highway	262	225	241	287	293	280	310	213	218	147	1,343	34	75
Other	33	20	18	17	9	4	2	1	-	-	117	-	-
Aviation	15,102	17,197	19,542	22,387	18,289	18,217	19,605	19,265	18,003	21,361	20,326	21,002	22,561
Natural Gas Transmission	3,691	3,870	3,610	2,602	1,717	1,746	1,746	1,611	1,603	4,786	3,940	4,339	3,734
subtotal	182,820	184,283	197,480	203,987	196,157	215,821	255,610	285,519	316,036	337,377	361,076	383,085	410,725



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Coal	33	20	18	17	9	4	2	1	-	-	117	-	-
Oil	179,096	180,393	193,853	201,368	194,431	214,071	253,863	283,906	314,433	332,591	347,870	365,855	393,123
Natural Gas	3,691	3,870	3,610	2,602	1,717	1,746	1,746	1,611	1,603	4,786	3,940	4,339	3,734
Other	-	-	-	-	-	-	-	-	-	-	9,149	12,891	13,868
CH4													
Passenger Cars	94,937	93,824	98,560	97,160	92,106	92,601	92,928	93,457	92,232	86,130	85,504	81,640	79,016
Light-Duty Trucks	14,132	14,663	16,392	17,842	18,806	20,921	23,456	25,898	26,302	25,139	25,943	26,321	26,688
Heavy-Duty Trucks	6,492	7,108	7,782	8,520	9,329	10,214	10,592	11,039	9,822	8,997	8,162	7,316	6,471
School Bus	771	860	1,008	1,016	1,115	1,183	1,173	1,208	1,343	1,458	1,421	1,285	1,152
Transit Bus	7	7	7	7	7	7	7	7	7	7	7	7	5
Motorcycle	198	232	308	358	312	360	400	352	586	569	696	661	623
RV	33	45	64	73	79	103	131	165	178	173	176	157	158
Other Bus	0	0	0	0	0	0	0	0	0	1	1	1	0
Railroad	1,854	1,512	1,618	1,934	1,973	1,912	1,766	1,355	1,400	2,065	1,653	1,408	1,648
Vessel Bunkering/Marine	373	380	506	807	872	960	882	530	900	584	1,305	968	686
Military and Other Off-highway	49	42	45	54	55	53	59	40	41	28	254	6	14
Other	20	12	11	10	6	2	1	1	-	-	70	-	-
Aviation	2,292	2,360	2,626	3,001	2,614	2,688	2,814	2,814	2,925	3,159	2,773	2,670	2,613
Natural Gas Transmission	762,900	781,950	782,102	736,221	700,630	697,262	682,251	683,368	689,673	862,761	824,320	844,402	823,242
subtotal	884,057	902,995	911,030	867,002	827,905	828,267	816,460	820,234	825,410	991,071	952,283	966,841	942,317
Coal	20	12	11	10	6	2	1	1	-	-	70	-	-
Oil	121,138	121,033	128,917	130,771	127,269	131,003	134,208	136,865	135,737	128,310	124,316	118,055	114,821
Natural Gas	762,900	781,950	782,102	736,221	700,630	697,262	682,251	683,368	689,673	862,761	824,320	844,402	823,242
Other	-	-	-	-	-	-	-	-	-	-	3,577	4,384	4,254
CO2													
Passenger Cars	13,473,772	14,203,592	14,706,757	15,002,878	14,083,325	14,009,701	14,217,795	14,556,223	15,151,474	14,637,687	13,603,980	13,143,259	12,574,299
Light-Duty Trucks	2,258,496	2,380,485	2,557,472	2,896,523	2,812,457	2,929,436	3,331,437	3,592,324	3,894,677	3,925,166	3,851,106	3,857,524	3,793,133
Heavy-Duty Trucks	2,386,203	2,626,220	2,835,545	3,058,830	3,220,154	3,401,409	3,433,486	3,447,496	3,796,565	4,174,803	4,321,239	4,435,026	4,504,524
School Bus	84,109	95,212	101,961	106,297	113,391	118,537	117,926	121,629	143,918	163,709	146,101	145,088	138,440
Transit Bus	86,871	82,746	82,786	83,817	85,981	91,952	94,287	95,087	99,536	99,842	99,320	102,618	106,203

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Motorcycle	17,865	21,183	27,129	32,538	27,625	31,213	34,800	30,774	54,386	55,387	64,297	61,446	56,056
RV	35,937	50,518	69,093	81,541	85,563	109,076	139,826	177,405	202,651	244,402	236,815	212,584	206,728
Other Bus	141	124	123	140	163	174	158	176	187	602	624	612	399
Railroad	939,651	766,375	820,326	980,169	999,927	969,458	895,208	686,653	709,741	1,046,998	837,832	713,639	835,342
Vessel Bunkering/Marine	207,531	210,759	283,279	455,333	492,980	543,895	498,044	297,166	508,112	547,471	741,644	541,891	381,382
Military and Other Off-highway	32,881	28,226	30,213	36,100	36,828	35,122	39,524	27,507	28,026	18,471	185,449	13,339	11,367
Other	6,955	4,232	3,825	3,585	2,010	844	355	259	-	-	25,862	-	-
Aviation	1,598,710	1,813,228	2,058,521	2,357,542	1,930,977	1,925,686	2,069,920	2,035,454	1,910,806	2,257,960	2,142,261	2,207,705	2,364,234
Natural Gas Transmission	444,911	469,626	446,584	326,412	219,741	235,104	236,655	220,762	221,511	651,011	541,145	601,718	519,080
subtotal	21,574,034	22,752,526	24,023,613	25,421,705	24,111,122	24,401,607	25,109,420	25,288,915	26,721,590	27,823,510	26,797,675	26,036,449	25,491,187
Coal	6,955	4,232	3,825	3,585	2,010	844	355	259	-	-	25,862	-	-
Oil	21,114,937	22,271,140	23,565,355	25,083,612	23,881,154	24,157,242	24,863,836	25,058,948	26,491,012	27,163,172	26,221,045	25,424,916	24,962,163
Natural Gas	444,911	469,626	446,584	326,412	219,741	235,104	236,655	220,762	221,511	651,011	541,145	601,718	519,080
Other	7,231	7,528	7,850	8,097	8,217	8,416	8,574	8,947	9,067	9,326	9,624	9,814	9,945
CO													
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-	-	-
Otherl Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-



Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in Minnesota: 1970-2006

All values converted from nominal tons to CO2-e tons

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Butane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFC-134a													
MAC	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	22,640,911	23,839,805	25,132,124	26,492,694	25,135,184	25,445,695	26,181,491	26,394,668	27,863,036	29,151,957	28,111,034	27,386,375	26,844,229
Total	106,726,380	107,872,811	112,259,375	117,196,364	113,583,689	110,531,230	117,903,746	115,034,751	120,579,383	120,117,869	117,365,251	111,494,157	110,655,325

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste
Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Agriculture													
N2O													
Energy N2O													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	16,249	13,787	16,588	20,197	16,529	16,654	14,757	13,843	17,232	20,116	17,457	18,562	18,299
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	0	1	50	49	25	16	17	20	49	67	110	116	119
subtotal	16,249	13,788	16,638	20,247	16,555	16,670	14,774	13,863	17,281	20,183	17,567	18,678	18,418
Controlled Burning N2O	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Residues N2O	1,323,756	1,341,928	1,501,746	1,786,821	1,754,934	558,924	994,291	1,292,680	1,607,796	1,389,576	921,655	1,382,677	1,330,699
Cultivated Histosols	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293
Deposition N2O	530,230	458,726	404,904	478,813	421,438	358,047	408,696	405,709	439,145	439,685	505,934	483,341	408,905
Feedlot N2O	1,070,129	1,044,916	1,012,132	951,513	910,529	874,115	858,970	920,423	935,612	923,886	914,241	922,334	938,135
Fertilizer N2O	2,438,278	2,227,427	2,514,979	2,694,866	2,807,120	2,839,534	1,510,159	3,170,242	2,336,855	3,128,410	3,161,602	3,290,988	2,746,668
Legumes N2O	-	-	-	-	-	-	-	-	-	-	-	-	-
Manure Soil Applications N2O	568,290	567,929	587,554	571,908	555,448	553,265	543,372	514,891	514,909	514,286	523,241	533,653	544,850
Runoff N2O	974,323	930,889	1,035,963	1,137,059	1,151,438	889,138	685,760	1,120,008	1,003,401	1,132,261	1,036,462	1,171,647	1,039,999
Wildfire N2O	6,122	13,769	7,180	4,059	18,907	33,156	6,936	20,798	11,151	5,936	3,929	4,333	4,662
subtotal	7,228,670	6,900,666	7,382,388	7,946,578	7,937,661	6,424,141	5,324,250	7,759,908	7,167,444	7,855,518	7,385,925	8,108,944	7,333,630
CH4													
Energy CH4													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	8,873	7,246	8,649	10,440	8,566	8,513	7,645	7,120	8,949	10,678	9,387	10,190	9,911
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	0	0	24	24	12	8	8	9	24	32	53	56	57
subtotal	8,873	7,246	8,673	10,464	8,578	8,521	7,653	7,129	8,973	10,710	9,440	10,246	9,968
Manure CH4	974,606	1,004,214	1,085,318	1,110,779	1,159,848	1,196,821	1,231,260	1,319,039	1,433,256	1,523,609	1,588,871	1,696,405	1,805,217
Ruminants CH4	6,437,840	6,301,992	6,258,081	5,922,074	5,578,760	5,374,478	5,161,735	5,084,056	5,042,136	5,034,045	4,851,637	4,824,492	4,918,281
Wild Rice CH4	137,451	171,814	185,559	171,814	137,451	137,451	137,451	137,451	137,451	137,451	137,451	113,397	113,397
Wildfire CH4	30,225	67,978	35,447	20,041	93,345	163,693	34,241	102,682	55,054	29,308	19,397	21,394	23,017

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
subtotal	7,588,996	7,553,244	7,573,078	7,235,173	6,977,982	6,880,964	6,572,341	6,650,357	6,676,871	6,735,124	6,606,796	6,665,935	6,869,881
CO2													
Energy CO2													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	2,838,934	2,246,304	2,673,625	3,210,047	2,641,867	2,594,468	2,345,846	2,184,422	2,766,059	3,364,854	2,987,234	3,278,722	3,168,921
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	2,838,934	2,246,304	2,673,625	3,210,047	2,641,867	2,594,468	2,345,846	2,184,422	2,766,059	3,364,854	2,987,234	3,278,722	3,168,921
Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
Erosion CO2	110,052	124,876	128,347	122,710	118,422	117,409	115,428	115,609	112,419	116,236	110,071	112,025	106,994
Histosol Cultivation CO2	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284
Liming of Fields CO2	80,310	70,539	60,769	60,173	59,577	56,122	52,666	49,330	45,994	52,905	59,816	41,942	42,657
Mineral Wetlands Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
Urea Applications CO2	146,171	146,045	146,626	308,924	246,779	258,852	115,791	243,994	204,646	234,236	294,178	372,628	332,243
subtotal	8,333,751	7,746,049	8,167,651	8,860,138	8,224,929	8,185,135	7,788,015	7,751,639	8,287,402	8,926,515	8,609,582	8,963,602	8,809,099
CO													
Energy CO	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy CO as CO2	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	23,151,417	22,199,959	23,123,117	24,041,889	23,140,572	21,490,240	19,684,606	22,161,903	22,131,717	23,517,157	22,602,303	23,738,480	23,012,610
Commercial													
N2O													
Energy													
Coal	1,589	2,105	2,006	1,874	1,475	1,949	2,328	1,820	1,227	1,211	1,657	1,581	1,499
Oil	6,016	7,777	3,878	1,886	2,731	1,704	2,727	1,716	1,427	1,274	1,142	1,437	1,403
Natural gas	2,257	2,352	2,412	2,307	2,054	2,494	2,670	2,427	2,690	2,576	2,696	2,620	2,835
Other	378	463	508	571	566	635	1,451	1,378	1,425	1,503	1,571	1,504	1,519



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
subtotal	10,239	12,697	8,804	6,638	6,826	6,782	9,176	7,341	6,769	6,565	7,065	7,143	7,257
Medical Uses	-	-	-	-	-	-	-	8,087	8,073	8,060	8,061	8,058	8,048
subtotal	10,239	12,697	8,804	6,638	6,826	6,782	9,176	15,428	14,842	14,625	15,126	15,201	15,305
CH4													
Energy													
Coal	889	1,177	1,122	1,048	825	1,090	1,302	1,018	686	677	927	884	839
Oil	8,598	11,007	5,556	2,795	3,971	2,544	3,990	2,566	2,173	1,980	1,840	2,245	2,217
Natural gas	9,466	9,865	10,117	9,677	8,617	10,460	11,198	10,180	11,283	10,805	11,307	10,991	11,892
Other	2,375	2,909	3,178	3,574	3,553	3,988	9,126	8,662	8,953	9,444	9,864	9,446	9,536
subtotal	21,327	24,959	19,972	17,094	16,966	18,083	25,616	22,426	23,096	22,907	23,937	23,567	24,483
subtotal	21,327	24,959	19,972	17,094	16,966	18,083	25,616	22,426	23,096	22,907	23,937	23,567	24,483
CO2													
Energy													
Coal	337,744	449,644	428,090	406,239	316,180	422,228	493,782	393,148	264,173	260,227	358,462	342,165	324,577
Oil	2,549,357	3,212,353	1,672,569	874,393	1,249,055	799,350	1,264,544	806,409	699,201	651,624	628,250	744,612	734,193
Natural gas	4,216,841	4,394,734	4,506,894	4,400,438	3,918,325	4,659,688	4,988,455	4,534,732	5,026,381	4,813,502	5,036,844	4,896,355	5,297,687
Other	-	-	-	-	-	-	-	118	-	-	-	-	-
subtotal	7,103,943	8,056,731	6,607,553	5,681,071	5,483,560	5,881,265	6,746,781	5,734,408	5,989,755	5,725,354	6,023,557	5,983,131	6,356,458
Limestone use	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvent uses	-	-	-	-	-	-	-	87,575	90,333	93,091	95,849	98,607	101,365
subtotal	7,103,943	8,056,731	6,607,553	5,681,071	5,483,560	5,881,265	6,746,781	5,821,983	6,080,088	5,818,444	6,119,405	6,081,738	6,457,822
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	7,135,510	8,094,387	6,636,329	5,704,803	5,507,351	5,906,130	6,781,573	5,859,836	6,118,026	5,855,976	6,158,468	6,120,506	6,497,611
Electricity Generation													
N2O													
Energy													
Coal	55,299	64,254	59,952	55,383	72,739	81,489	85,860	82,206	79,972	78,466	86,918	85,998	87,530
Oil	175	91	73	16,278	188	6,397	18,702	20,485	26,966	30,013	31,386	29,974	23,636
Natural gas	1,003	713	393	1,357	1,757	2,873	1,475	2,704	3,072	2,788	2,058	3,455	5,098
Other	23	1	(1)	1,169	5,597	16,160	21,365	45,047	50,019	51,904	56,193	56,515	55,717
subtotal	56,500	65,058	60,417	74,187	80,281	106,918	127,401	150,442	160,029	163,171	176,554	175,941	171,981
Energy-Net Electricity Imports	19,763	29,962	23,052	36,090	24,812	22,432	24,996	30,054	41,592	39,750	31,963	40,877	46,100
subtotal	76,264	95,020	83,469	110,278	105,094	129,350	152,397	180,496	201,621	202,921	208,517	216,819	218,081
CH4													
Energy													
Coal	3,295	3,729	3,490	3,095	4,127	5,315	5,333	5,337	5,279	5,261	5,810	5,732	5,815
Oil	22	13	11	185	26	107	188	224	280	294	319	331	273
Natural gas	852	495	154	130	1,003	965	336	1,140	1,199	770	513	633	944
Other	4	0	(0)	18	46	374	160	478	560	732	968	2,248	5,191
subtotal	4,172	4,237	3,655	3,427	5,202	6,760	6,016	7,179	7,317	7,057	7,611	8,944	12,223
Hydroelectric	2,519	2,607	2,511	2,511	2,511	2,869	2,858	2,858	2,858	5,310	5,310	5,310	5,310
Coal storage	13,666	13,399	16,270	13,232	14,454	16,845	16,394	17,308	16,594	15,328	16,634	19,149	16,869
Energy-Net Electricity Imports	7,121	9,323	8,560	9,326	6,851	5,554	4,957	5,463	6,957	6,747	5,351	7,761	9,222
subtotal	27,478	29,566	30,996	28,496	29,019	32,028	30,225	32,808	33,727	34,442	34,905	41,164	43,624



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
CO2													
Energy													
Coal	20,277,831	22,543,953	21,591,009	19,463,547	25,354,960	31,444,069	32,143,008	31,815,120	31,205,285	30,757,774	33,840,856	33,504,727	33,802,166
Oil	43,652	26,625	23,250	496,647	46,308	241,615	472,231	563,008	712,654	755,051	818,520	841,673	664,288
Natural gas	168,586	115,427	74,451	268,108	338,424	555,645	261,515	484,810	552,917	506,337	401,831	566,875	812,937
Other	(56)	-	-	14,711	53,582	153,573	287,035	495,989	556,135	574,806	611,070	608,852	603,679
subtotal	20,490,013	22,686,006	21,688,710	20,243,013	25,793,275	32,394,901	33,163,789	33,358,928	33,026,991	32,593,968	35,672,277	35,522,127	35,883,070
FGD	-	-	-	-	-	-	-	-	2,962	2,998	3,066	2,102	1,858
Energy-Net Electricity Imports	7,415,683	10,779,112	8,547,576	10,194,813	8,194,872	6,955,019	6,658,248	6,824,037	8,795,120	8,142,622	6,611,793	8,450,859	9,845,794
subtotal	27,905,696	33,465,117	30,236,286	30,437,826	33,988,146	39,349,921	39,822,037	40,182,965	41,825,073	40,739,587	42,287,136	43,975,089	45,730,722
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
SF6													
Energy	625,829.67	626,010.98	623,593.48	612,896.06	610,297.25	609,330.25	608,121.50	608,605.00	610,478.56	625,890.11	626,857.11	627,763.67	626,615.36



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Energy-Net Electricity Imports	218,910.49	288,305.13	237,927.24	298,160.61	188,623.06	127,840.85	119,311.41	121,581.70	158,663.35	152,472.09	113,486.41	145,851.43	167,965.78
subtotal	844,740.16	914,316.11	861,520.73	911,056.67	798,920.31	737,171.10	727,432.91	730,186.70	769,141.91	778,362.20	740,343.52	773,615.10	794,581.14
Total	28,854,177	34,504,020	31,212,271	31,487,657	34,921,179	40,248,470	40,732,092	41,126,456	42,829,563	41,755,313	43,270,901	45,006,686	46,787,008
Waste													
N2O													
Energy													
Associated Incinerator Fuels	-	-	-	-	-	-	-	-	-	-	-	-	-
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	148	-	230	-	88	208	108	69	103	235
Natural gas-steam	-	-	-	131	-	146	-	145	192	202	337	226	264
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	36	44	21	90	33
Distillate fuel oil-steam	-	-	-	2	-	1	-	4	3	5	6	7	6
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	0	1	1
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	0	0	1	2
subtotal	-	-	-	280	-	376	-	237	438	359	433	429	541
Waste Processing	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Operations (energy)	85	93	94	99	97	103	95	82	66	65	60	62	64
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	5	18	21	22	22	22
MMSW Compost Preprocessing (energy)	1	2	1	1	1	1	1	2	3	5	5	3	3
MRF (energy)	5	5	8	9	10	16	22	27	35	40	44	48	52
RDF Processing (energy)	-	-	0	1	2	6	12	17	18	19	20	20	20
Incinerator Ash Disposal (energy)	-	-	-	0	0	0	0	0	0	0	0	0	0
subtotal	91	100	103	109	111	126	129	133	140	150	151	154	161
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	91	100	103	111	111	127	129	137	179	200	178	252	202
Natural Gas	-	-	-	131	-	146	-	145	192	202	337	227	265



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Incinerated Waste	-	-	-	1,807	2,755	3,375	2,847	2,949	2,972	2,895	2,726	2,807	2,412
Other	-	-	-	148	-	230	-	88	208	108	69	103	235
energy subtotal	91	100	103	2,197	2,865	3,878	2,976	3,320	3,551	3,404	3,310	3,390	3,114
Incinerated Waste													
Waste Sector RDF	-	-	-	1,211	1,211	1,837	1,211	1,334	1,345	1,315	1,133	1,123	933
Waste Sector Mass Burn	-	-	-	-	921	888	947	888	953	918	949	975	743
Sludge Incineration	-	-	-	596	623	650	688	727	674	662	644	710	735
subtotal	-	-	-	1,807	2,755	3,375	2,847	2,949	2,972	2,895	2,726	2,807	2,412
Other Sources	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-	10	16
Rural Open Burning	6,705	6,705	6,086	6,045	5,820	5,493	5,300	5,364	5,250	5,025	4,820	4,534	4,257
Medical Waste Incineration	-	-	-	-	-	-	-	22	53	61	61	35	60
Misc. Industrial/Comm Waste Incineration	3,013	3,222	3,327	3,441	3,562	3,655	3,836	4,038	4,136	4,330	4,313	381	161
Municipal Wastewater	87,262	88,699	92,773	91,326	96,535	97,207	95,700	99,509	103,426	105,582	105,702	107,263	107,374
Biosolids Land Application	19,826	16,965	10,322	18,301	12,364	13,064	18,462	12,527	13,629	13,625	19,279	23,769	21,364
MMSW Waste Composting	4,441	7,330	5,018	4,939	4,793	4,327	6,309	8,291	14,498	20,946	20,210	11,777	13,750
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	121,247	122,922	117,527	124,053	123,073	123,745	129,607	129,751	140,992	149,569	154,384	147,769	146,981
subtotal	121,338	123,022	117,630	126,250	125,939	127,623	132,583	133,071	144,543	152,972	157,694	151,158	150,095
CH4													
Energy													
Associated Incinerator Fuels	-	-	-	-	-	-	-	-	-	-	-	-	-
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	20	-	30	-	12	28	14	9	14	31
Natural gas-steam	-	-	-	11	-	12	-	12	16	17	28	19	22
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	1	1	0	2	1

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Distillate fuel oil-steam	-	-	-	0	-	0	-	0	0	0	0	0	0
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	1	8	7
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	0	0	0	0
subtotal	-	-	-	31	-	43	-	24	44	32	39	43	61
Waste Processing	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Operations (energy)	16	17	17	18	18	19	17	15	12	12	11	11	12
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	1	3	4	4	4	4
MMSW Compost Preprocessing (energy)	0	0	0	0	0	0	0	0	1	1	1	1	1
MRF (energy)	1	1	1	2	2	3	4	5	6	7	8	9	10
RDF Processing (energy)	-	-	0	0	0	1	2	3	3	3	4	4	4
Incinerator Ash Disposal (energy)	-	-	-	0	0	0	0	0	0	0	0	0	0
subtotal	17	18	19	20	20	23	24	25	26	28	28	28	30
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	17	18	19	20	20	23	24	25	27	29	28	30	31
Natural Gas	-	-	-	11	-	12	-	12	16	17	30	27	29
Incinerated Waste	-	-	-	6,071	6,504	6,936	7,373	7,812	6,860	6,769	6,590	7,448	7,860
Other	-	-	-	20	-	30	-	12	28	14	9	14	31
energy subtotal	17	18	19	6,122	6,524	7,001	7,397	7,860	6,931	6,829	6,657	7,519	7,951
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector RDF (energy)	-	-	-	1	1	2	1	1	1	1	1	1	1
Waste Sector Mass Burn (energy)	-	-	-	-	1	1	1	1	1	1	1	1	1
Sludge Incineration (energy)	-	-	-	6,070	6,502	6,933	7,371	7,810	6,858	6,767	6,588	7,446	7,858
subtotal	-	-	-	6,071	6,504	6,936	7,373	7,812	6,860	6,769	6,590	7,448	7,860
Other Sources	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	16	-	2	-	-	-	4,936	9,742
Rural Open Burning	24,375	24,375	22,126	21,976	21,157	19,968	19,266	19,500	19,086	18,267	17,522	16,481	15,474
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Municipal Wastewater	366,100	368,844	372,520	375,704	379,710	386,533	391,667	397,725	402,346	407,303	412,773	417,702	422,216
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-	-	-



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MMSW composting	5,491	9,062	6,204	6,106	5,926	5,350	7,800	10,251	17,925	25,896	24,987	14,560	16,999
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	4,441,862	4,601,467	4,830,104	4,919,196	5,226,520	5,386,984	5,541,434	5,625,310	5,624,877	5,488,564	5,337,993	4,948,420	4,549,693
Industrial Landfills	4,685	13,178	23,834	31,953	41,408	51,177	60,580	77,354	89,645	101,301	112,104	81,167	90,226
D/C Landfills	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	4,842,512	5,016,926	5,254,789	5,354,936	5,674,721	5,850,028	6,020,747	6,130,141	6,153,878	6,041,332	5,905,379	5,483,267	5,104,350
subtotal	4,842,529	5,016,944	5,254,808	5,361,058	5,681,245	5,857,029	6,028,144	6,138,001	6,160,808	6,048,160	5,912,036	5,490,786	5,112,301

CO2

Energy
Associated Incinerator Fuels
Bituminous coal
Natural gas-steam
Residual fuel oil
Waste oil
Waste solvent
Propane
Distillate fuel oil-steam
Natural gas-internal combustion engine
Distillate fuel oil-internal combustion engine
subtotal
Waste Processing
Landfill Operations (energy)
Yard Waste Preprocessing (energy)
MMSW Compost Preprocessing (energy)
MRF (energy)
RDF Processing (energy)
Incinerator Ash Disposal (energy)
Hazardous Waste (energy)
subtotal

-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	26,271	-	28,779	-	28,662	37,801	39,766	66,346	44,582	52,072	
-	-	-	2,599	2,599	2,599	11,545	20,490	10,927	9,706	3,937	5,462	4,076	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	10,779	19,325	20,867	16,987	21,069	
-	-	-	-	-	-	-	-	1,885	2,347	1,109	4,783	1,744	
-	-	-	1,051	-	369	-	2,179	1,676	3,330	3,658	4,347	3,716	
-	-	-	-	-	-	-	-	-	-	12	69	58	
-	-	-	-	-	-	-	-	-	45	30	94	246	
-	-	-	29,920	2,599	31,747	11,545	51,332	63,069	74,518	95,959	76,324	82,982	
-	-	-	-	-	-	-	-	-	-	-	-	-	
11,125	12,146	12,327	12,897	12,688	13,418	12,392	10,775	8,603	8,450	7,892	8,074	8,379	
-	-	-	-	-	-	-	668	2,325	2,736	2,860	2,923	2,906	
135	223	153	150	146	132	192	252	441	637	614	358	418	
644	699	1,030	1,161	1,358	2,129	2,846	3,562	4,624	5,279	5,702	6,237	6,850	
-	-	1	114	276	833	1,506	2,204	2,386	2,462	2,627	2,563	2,553	
-	-	-	3	5	6	5	5	5	5	5	5	4	
-	-	-	37,991	37,991	37,991	37,991	37,991	34,883	40,754	32,990	32,990	34,303	
11,905	13,068	13,510	52,316	52,465	54,508	54,931	55,458	53,266	60,324	52,691	53,150	55,412	



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	11,905	13,068	13,510	55,966	55,063	57,476	66,476	78,128	67,755	75,752	61,425	67,836	65,194
Natural Gas	-	-	-	26,271	-	28,779	-	28,662	37,801	39,766	66,358	44,651	52,130
Incinerated Waste	-	-	-	16,819	24,481	33,292	25,531	27,087	28,281	27,914	25,854	26,126	21,101
Other	-	-	-	-	-	-	-	-	10,779	19,325	20,867	16,987	21,069
energy subtotal	11,905	13,068	13,510	99,056	79,545	119,547	92,007	133,876	144,616	162,757	174,504	155,600	159,495
Incinerated Waste													
Waste Sector RDF (energy)	-	-	-	16,819	16,819	25,509	16,819	18,523	18,676	18,260	15,731	15,588	12,961
Waste Sector Mass Burn (energy)	-	-	-	-	7,662	7,783	8,712	8,563	9,604	9,654	10,123	10,538	8,141
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	16,819	24,481	33,292	25,531	27,087	28,281	27,914	25,854	26,126	21,101
Other Sources	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	37,808	37,808	34,321	40,905	39,381	39,127	39,643	42,038	43,019	42,968	41,785	39,840	37,909
Medical Waste Incineration	-	-	-	-	-	-	-	1,979	4,800	5,524	5,505	3,207	5,414
Misc. Industrial/Comm Waste Incineration	30,583	32,705	33,773	34,923	36,151	39,051	43,043	47,474	50,831	55,538	56,086	5,020	2,147
Municipal Wastewater	-	-	-	-	-	-	-	-	-	-	-	-	-
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW composting	-	-	-	-	-	-	-	-	-	-	-	-	-
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-	-	-
City Dumps	-	-	-	-	-	-	-	-	-	-	-	-	-
limestone use	-	-	-	-	-	-	-	-	-	-	-	-	-
Sequestration in deomition/conztruction landfills	(270,511)	(363,303)	(453,909)	(542,331)	(628,569)	(712,622)	(794,490)	(874,174)	(951,673)	(1,026,987)	(1,100,117)	(1,171,063)	(1,239,823)
other subtotal	(202,120)	(292,789)	(385,816)	(466,503)	(553,037)	(634,444)	(711,805)	(782,683)	(853,023)	(922,957)	(996,741)	(1,122,996)	(1,194,353)
subtotal	(190,215)	(279,721)	(372,306)	(367,447)	(473,492)	(514,896)	(619,798)	(648,807)	(708,407)	(760,201)	(822,237)	(967,396)	(1,034,858)
CO													
Energy													
Associated Incinerator Fuels													
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-	-	-



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Wood	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-steam	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Processing													
Landfill Operations (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Compost Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
MRF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
RDF Processing (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerator Ash Disposal (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste													
Waste Sector RDF (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Other Sources													
LFG Flaring	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil Roasting	-	-	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
other subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Fossil CO Oxidation	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,773,652	4,860,245	5,000,131	5,119,860	5,333,692	5,469,756	5,540,929	5,622,266	5,596,944	5,440,932	5,247,493	4,674,549	4,227,538
Residential													
N2O													
Energy													
Coal	82	69	67	64	43	71	64	34	32	30	28	25	23
Oil	4,082	4,354	4,836	5,015	4,855	5,473	5,857	4,093	5,148	4,389	4,223	4,427	4,399
Natural gas	3,115	3,188	3,340	3,219	2,803	3,443	3,666	3,349	3,697	3,581	3,891	3,854	4,067
Other	33,271	32,717	31,497	29,389	27,393	25,219	23,046	21,737	20,406	19,186	18,188	17,634	17,079
subtotal	40,551	40,328	39,739	37,688	35,094	34,207	32,633	29,214	29,284	27,186	26,330	25,940	25,568
Lawn Fertilizer	17,660	17,936	18,214	18,492	18,772	19,053	19,336	17,873	17,645	17,570	23,318	23,130	22,884
subtotal	58,212	58,265	57,953	56,180	53,866	53,260	51,968	47,087	46,929	44,755	49,648	49,069	48,452
CH4													
Energy													
Coal	1,384	1,154	1,126	1,079	728	1,194	1,070	578	539	501	462	424	385



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Oil	6,764	6,842	7,516	7,900	7,651	8,559	9,192	6,650	8,202	7,262	7,282	7,555	7,556
Natural gas	13,067	13,374	14,009	13,502	11,756	14,443	15,379	14,047	15,510	15,020	16,321	16,164	17,060
Other	209,340	205,851	198,175	184,917	172,357	158,680	145,003	136,769	128,395	120,719	114,439	110,950	107,461
subtotal	230,555	227,221	220,826	207,398	192,493	182,876	170,645	158,044	152,647	143,502	138,505	135,094	132,462
subtotal	230,555	227,221	220,826	207,398	192,493	182,876	170,645	158,044	152,647	143,502	138,505	135,094	132,462
CO2													
Energy													
Coal	17,530	14,696	14,325	13,445	9,310	14,885	13,532	7,203	6,722	6,242	5,762	5,282	4,802
Oil	2,352,749	2,266,006	2,463,374	2,623,580	2,542,315	2,822,325	3,041,388	2,273,587	2,754,014	2,523,397	2,619,956	2,695,192	2,709,904
Natural gas	5,821,121	5,957,750	6,240,863	6,140,022	5,346,052	6,439,263	6,855,509	6,258,474	6,909,798	6,691,588	7,271,626	7,204,896	7,602,372
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	8,191,400	8,238,452	8,718,561	8,777,047	7,897,677	9,276,474	9,910,429	8,539,264	9,670,535	9,221,228	9,897,344	9,905,370	10,317,077
Soaps, detergents, shampoos	-	-	-	-	-	-	-	69,786	69,660	69,547	73,422	77,256	81,024
Food additives	-	-	-	-	-	-	-	11,631	11,610	11,591	13,525	13,520	13,504
Carbon sequestration in housing units	(836,011)	(910,235)	(943,008)	(910,771)	(946,912)	(1,068,422)	(1,098,216)	(1,043,566)	(953,146)	(909,431)	(912,427)	(937,340)	(925,857)
subtotal	7,355,389	7,328,216	7,775,554	7,866,276	6,950,765	8,208,052	8,812,213	7,577,115	8,798,659	8,392,935	9,071,864	9,058,805	9,485,749
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFC-152a/HFC-134a													
Aerosol use	-	-	-	-	-	-	-	-	12,529	12,509	12,511	12,506	168,632
subtotal	-	-	-	-	-	-	-	-	12,529	12,509	12,511	12,506	168,632
HFC-134a													
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	98	200
subtotal	-	-	-	-	-	-	-	-	-	-	-	98	200
Total	7,644,155	7,613,702	8,054,333	8,129,854	7,197,124	8,444,188	9,034,826	7,782,246	9,010,763	8,593,701	9,272,527	9,255,573	9,835,495
Industrial													
N2O													
Energy													
Stationary source													
Coal	9,187	9,117	10,497	10,085	8,380	7,206	9,422	8,347	9,630	13,094	15,569	16,506	14,590
Oil	7,236	8,065	7,731	9,934	7,961	9,567	7,510	9,522	281,891	288,865	294,797	295,083	291,299
Natural gas	2,081	2,189	2,076	1,644	2,243	2,303	2,554	2,673	2,802	2,818	2,989	2,854	3,176
Other	32,075	31,866	31,220	16,227	31,531	13,063	30,210	15,719	17,081	26,046	20,694	17,751	18,145
subtotal	50,579	51,238	51,524	37,889	50,115	32,139	49,696	36,261	311,402	330,822	334,049	332,194	327,211
Off-highway vehicle													
Oil	860	1,796	2,719	2,277	1,999	2,497	2,788	3,557	3,999	3,517	3,563	4,048	4,883
Other	0	0	5	5	3	2	3	4	7	10	19	21	27

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
subtotal	860	1,796	2,724	2,283	2,002	2,499	2,790	3,562	4,006	3,527	3,582	4,069	4,910
subtotal	51,439	53,034	54,248	40,172	52,117	34,638	52,487	39,823	315,408	334,349	337,631	336,263	332,120
subtotal	51,439	53,034	54,248	40,172	52,117	34,638	52,487	39,823	315,408	334,349	337,631	336,263	332,120
CH4													
Energy													
Stationary source													
Coal	5,138	5,099	5,871	5,640	4,687	4,030	5,269	4,668	5,386	7,323	8,708	9,232	8,160
Oil	3,454	3,689	3,590	4,991	3,904	5,001	4,054	5,364	5,367	5,354	5,160	5,769	5,795
Natural gas	1,746	1,837	1,742	1,379	1,881	1,932	2,142	2,243	2,350	2,364	2,508	2,394	2,665
Other	20,181	20,050	19,644	8,436	19,839	6,422	19,008	8,071	8,919	14,549	11,170	9,308	9,556
subtotal	30,519	30,675	30,847	20,446	30,312	17,386	30,474	20,346	22,022	29,590	27,545	26,702	26,175
Off-highway vehicle													
Oil	162	332	503	422	371	462	516	658	739	650	659	748	902
Other	0	0	1	1	1	0	1	1	1	2	4	4	5
subtotal	162	332	504	423	372	463	517	659	740	652	662	752	907
subtotal	30,680	31,007	31,351	20,869	30,683	17,849	30,991	21,005	22,762	30,243	28,207	27,454	27,082
Coal storage	5,571	5,276	4,982	4,687	3,486	2,285	2,536	2,787	3,855	6,795	4,921	5,601	4,273
Oil Refining	30,948	24,191	31,233	31,676	32,797	32,468	43,939	43,354	43,511	28,269	29,773	28,867	29,179
Peat mining	8,941	8,759	12,408	11,678	10,948	10,583	12,043	17,517	12,773	13,138	12,043	13,503	8,759
Industrial wastewater treatment	74,880	83,600	77,604	79,405	87,626	76,520	84,663	91,057	105,966	109,308	90,233	112,717	106,475
subtotal	151,020	152,834	157,578	148,316	165,540	139,705	174,172	175,719	188,867	187,753	165,177	188,142	175,768
CO2													
Energy													
Coal	1,981,095	1,955,054	2,219,962	2,159,780	1,780,044	1,555,655	2,005,986	1,800,925	2,069,715	2,796,500	3,358,390	3,556,359	3,152,073
Oil	3,543,434	3,829,924	3,815,859	4,555,437	3,978,686	4,398,799	4,222,406	4,684,523	4,701,693	4,538,727	4,541,719	5,161,501	5,205,883
Natural gas	3,888,800	4,090,834	3,879,673	3,135,939	4,277,595	4,303,567	4,772,140	4,995,044	5,234,942	5,264,820	5,585,365	5,332,432	5,935,238
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	9,413,328	9,875,811	9,915,494	9,851,156	10,036,326	10,258,021	11,000,532	11,480,492	12,006,350	12,600,047	13,485,475	14,050,292	14,293,194
Taconite induration	708,502	1,010,959	969,367	763,532	1,085,583	1,487,114	1,635,682	1,766,066	1,687,334	1,660,074	1,602,170	1,735,283	1,881,317
Steel production	-	-	-	-	-	-	-	2,411	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Ammonia Manufacture	-	-	-	32,400	32,400	32,400	32,400	32,400	32,400	32,400	32,400	32,400	32,400
Glass manufacture	-	-	-	-	-	-	-	11,447	9,196	9,196	7,873	7,955	7,786
Peat Mining/Use	34,135	33,439	47,371	44,585	41,798	40,405	45,978	66,877	48,765	50,158	45,978	51,551	33,439
Industrial solvent release	-	-	27,193	27,345	28,480	29,596	30,805	29,921	30,362	30,803	31,244	31,685	32,126
Other industrial VOC and TRI releases	-	-	420,202	426,048	435,887	508,839	533,448	366,449	353,834	343,437	336,595	335,593	339,364
subtotal	10,155,965	10,920,209	11,379,627	11,145,065	11,660,474	12,356,374	13,278,844	13,756,063	14,168,241	14,726,116	15,541,735	16,244,758	16,619,626
CO													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	-	-	-	-	-	-	-	-	-	-	-	-	-
Other industrial process	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Energy													
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	-	-	86,050	85,896	95,028	93,500	101,208	93,589	93,021	92,452	91,884	91,315	90,747
Other industrial process	-	-	6,573	6,793	7,102	7,597	7,250	11,480	11,222	10,964	10,707	10,449	10,191
subtotal	-	-	92,623	92,689	102,130	101,097	108,457	105,069	104,243	103,417	102,590	101,764	100,938
HFCs													
Industrial refrigeration													
Food processing													
Insulating foam manufacture													

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Boat buidling													
subtotal													
PFCs, HFCs, HFES													
Solvent	-	-	-	-	-	-	-	-	-	-	-	-	21,903
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	21,903
PFCs													
Semiconductor Mfr	-	-	-	-	-	-	-	-	-	18,819	20,309	26,571	33,610
subtotal	-	-	-	-	-	-	-	-	-	18,819	20,309	26,571	33,610
SF6													
Magnesium casting													
subtotal													
Total	10,358,424	11,126,077	11,684,076	11,426,242	11,980,261	12,631,814	13,613,961	14,076,675	14,776,759	15,370,454	16,167,441	16,897,499	17,283,965
Transportation													
N2O													
Passenger Cars	296,903	321,112	346,438	371,905	403,200	428,335	445,285	467,270	474,252	498,772	506,749	510,659	495,639
Light-Duty Trucks	101,367	117,039	151,403	175,711	185,445	217,339	248,723	282,322	309,334	348,061	375,490	406,346	460,885
Heavy-Duty Trucks	11,621	11,550	11,272	11,064	10,905	11,401	12,165	12,926	13,606	14,644	16,153	17,585	18,882
School Bus	1,380	1,277	1,166	1,040	925	806	488	578	586	592	608	669	684
Transit Bus	56	51	56	57	57	57	60	63	62	64	68	81	77
Motorcycle	680	700	567	652	603	665	734	648	584	762	823	808	716
RV	3,580	3,614	3,456	3,625	3,860	4,029	4,122	4,181	4,222	4,277	4,167	3,971	3,624
Other Bus	13	18	15	14	2	2	1	1	1	1	1	1	1
Railroad	5,467	3,870	3,188	4,162	3,487	3,669	3,369	5,387	5,780	9,766	8,655	10,409	9,799
Vessel Bunkering/Marine	2,777	7,567	5,114	4,223	4,179	3,961	4,556	5,141	6,028	4,909	2,516	2,471	3,038
Military and Other Off-highway	72	61	49	63	214	241	181	110	137	73	44	18	24
Other	-	-	-	22	-	16	-	-	-	-	-	-	-
Aviation	24,942	27,770	31,246	31,265	31,880	31,532	34,934	35,453	35,336	36,698	38,552	37,537	38,854
Natural Gas Transmission	1,916	2,833	2,680	3,169	2,762	4,229	4,679	4,486	4,850	5,866	6,275	6,539	7,231
subtotal	450,775	497,461	556,650	606,973	647,519	706,283	759,298	818,566	854,779	924,483	960,102	997,095	1,039,453



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Coal	-	-	-	22	-	16	-	-	-	-	-	-	-
Oil	433,472	450,622	522,565	582,792	622,254	677,538	728,087	785,417	820,032	886,313	919,929	955,507	994,122
Natural Gas	1,916	2,833	2,680	3,169	2,762	4,229	4,679	4,486	4,850	5,866	6,275	6,539	7,231
Other	15,387	44,006	31,404	20,990	22,503	24,500	26,532	28,663	29,897	32,305	33,897	35,049	38,100
CH4													
Passenger Cars	80,040	75,900	71,680	68,368	66,237	63,864	62,076	60,207	57,570	58,327	57,828	56,551	49,678
Light-Duty Trucks	29,238	30,858	31,519	33,482	35,737	36,280	36,450	36,591	35,842	35,961	36,919	37,402	37,972
Heavy-Duty Trucks	6,372	6,263	6,132	5,977	5,826	5,779	5,749	5,714	5,654	5,521	5,479	5,448	5,136
School Bus	1,043	951	854	745	643	536	260	136	138	140	143	158	161
Transit Bus	5	5	5	5	5	5	5	6	6	6	6	7	7
Motorcycle	574	592	479	551	509	562	620	548	494	644	695	683	605
RV	167	169	161	169	180	188	192	195	197	200	194	186	170
Other Bus	1	1	1	1	0	0	0	0	0	0	0	0	0
Railroad	1,411	999	823	1,074	900	947	870	1,391	1,492	2,521	2,234	2,687	2,529
Vessel Bunkering/Marine	670	1,839	1,238	1,029	1,019	966	1,110	1,252	1,469	1,194	611	601	738
Military and Other Off-highway	14	12	9	12	40	45	34	21	26	14	8	3	4
Other	-	-	-	13	-	9	-	-	-	-	-	-	-
Aviation	2,723	2,137	3,442	3,688	3,702	3,487	3,683	4,234	4,058	3,769	3,948	3,898	3,994
Natural Gas Transmission	760,026	800,016	786,602	904,871	887,841	880,459	913,600	942,187	881,852	1,011,646	1,043,512	1,046,369	1,079,362
subtotal	882,284	919,740	902,945	1,019,986	1,002,639	993,127	1,024,650	1,052,481	988,796	1,119,941	1,151,580	1,153,992	1,180,356
Coal	-	-	-	13	-	9	-	-	-	-	-	-	-
Oil	117,879	108,662	109,643	111,015	110,723	108,680	107,108	106,421	103,205	104,522	104,248	103,860	97,303
Natural Gas	760,026	800,016	786,602	904,871	887,841	880,459	913,600	942,187	881,852	1,011,646	1,043,512	1,046,369	1,079,362
Other	4,380	11,063	6,700	4,086	4,075	3,978	3,942	3,873	3,739	3,774	3,820	3,763	3,691
CO2													
Passenger Cars	13,034,535	12,990,083	12,037,489	11,843,533	12,129,643	12,092,594	12,177,669	11,266,296	11,334,739	11,767,848	11,508,134	11,658,192	11,134,179
Light-Duty Trucks	4,351,680	4,768,482	5,035,404	5,320,912	5,593,478	6,351,864	6,461,170	6,598,887	6,842,403	7,154,443	7,375,748	8,064,148	8,950,761
Heavy-Duty Trucks	4,678,458	4,850,010	4,688,963	4,564,426	4,562,883	4,539,533	4,759,122	4,955,764	5,025,944	5,066,662	5,217,111	5,367,123	5,485,189
School Bus	140,446	133,665	148,506	143,162	150,814	158,175	161,744	174,220	177,469	178,839	213,512	253,568	172,068
Transit Bus	93,151	91,034	94,008	92,054	93,207	93,344	97,546	108,251	110,883	110,993	120,002	127,982	122,634



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Motorcycle	52,390	54,648	42,483	48,904	46,930	53,449	58,096	48,888	45,318	57,871	61,020	60,771	53,548
RV	221,925	226,721	209,914	220,587	242,887	253,501	249,345	236,759	238,714	231,868	221,500	221,307	208,422
Other Bus	565	749	654	598	102	85	52	34	43	34	33	34	33
Railroad	715,481	506,442	417,114	544,596	456,274	480,156	440,818	704,913	756,343	1,277,873	1,132,543	1,362,127	1,282,186
Vessel Bunkering/Marine	372,716	1,021,875	683,951	565,559	562,135	533,933	614,246	691,305	806,305	653,387	329,288	323,022	395,134
Military and Other Off-highway	9,636	40,488	24,183	17,359	29,270	32,623	24,233	13,791	20,417	9,108	5,465	2,246	2,973
Other	-	-	-	4,706	-	3,361	-	-	-	-	-	-	-
Aviation	2,608,694	2,879,004	3,268,629	3,277,546	3,340,216	3,298,998	3,649,665	3,717,359	3,701,053	3,830,629	4,023,781	3,919,165	4,054,525
Natural Gas Transmission	270,740	396,023	375,106	452,136	395,281	671,967	708,762	715,192	797,690	893,804	969,586	1,033,447	1,146,090
subtotal	26,550,417	27,959,224	27,026,403	27,096,078	27,603,120	28,563,584	29,402,469	29,231,659	29,857,321	31,233,358	31,177,723	32,393,132	33,007,743
Coal	-	-	-	4,706	-	3,361	-	-	-	-	-	-	-
Oil	26,269,534	27,552,847	26,640,840	26,628,606	27,197,049	27,877,272	28,682,477	28,505,010	29,047,961	30,327,636	30,195,924	31,345,608	31,847,561
Natural Gas	270,740	396,023	375,106	452,136	395,281	671,967	708,762	715,192	797,690	893,804	969,645	1,035,156	1,147,625
Other	10,143	10,354	10,457	10,630	10,789	10,984	11,230	11,457	11,669	11,919	12,155	12,368	12,557
CO													
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-	-	-
Otherl Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
CO as CO2													
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Bus	-	-	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Butane													
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
HFC-134a													
MAC	-	-	-	-	-	-	-	-	2,511	13,687	16,815	40,071	92,243
subtotal	-	-	-	-	-	-	-	-	2,511	13,687	16,815	40,071	92,243
Total	27,883,477	29,376,425	28,485,998	28,723,037	29,253,278	30,262,994	31,186,417	31,102,705	31,703,407	33,291,470	33,306,220	34,584,290	35,319,795
Total	109,800,812	117,774,815	114,196,256	114,633,341	117,333,456	124,453,592	126,574,405	127,732,087	132,167,180	133,825,001	136,025,353	140,277,582	142,964,022

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture											
N2O											
Energy N2O											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	16,863	21,127	16,889	13,070	12,188	14,667	11,856	11,394	13,488	14,167	13,917
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	48	278	156	152	145	143	131	148	148	191	330
subtotal	16,911	21,405	17,045	13,221	12,333	14,810	11,987	11,542	13,635	14,357	14,247
Controlled Burning N2O	-	-	-	-	-	-	-	-	-	-	-
Crop Residues N2O	1,521,453	1,725,594	1,852,363	1,825,887	1,694,709	1,437,734	1,705,725	1,661,482	1,751,532	1,856,140	1,872,441
Cultivated Histosols	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293	301,293
Deposition N2O	475,087	351,792	525,283	502,328	478,139	480,599	541,997	395,862	461,318	573,748	434,597
Feedlot N2O	933,890	892,183	850,195	840,319	849,206	852,043	839,157	831,233	831,380	822,052	827,958
Fertilizer N2O	3,413,259	3,186,345	3,249,970	3,134,180	2,891,285	2,646,061	2,995,997	3,431,041	2,989,779	3,047,986	2,898,715
Legumes N2O	-	-	-	-	-	-	-	-	-	-	-
Manure Soil Applications N2O	564,739	587,717	592,485	592,616	595,858	600,480	604,777	612,071	608,744	604,087	608,251
Runoff N2O	1,237,376	1,237,422	1,281,334	1,249,354	1,165,917	1,053,962	1,193,962	1,283,534	1,203,762	1,239,348	1,210,367
Wildfire N2O	3,859	3,665	8,287	5,623	11,302	1,707	7,141	31,019	9,210	5,358	14,292
subtotal	8,467,866	8,307,417	8,678,255	8,464,821	8,000,041	7,388,687	8,202,035	8,559,076	8,170,654	8,464,368	8,182,161
CH4											
Energy CH4											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	9,452	10,998	8,735	7,033	6,770	7,847	7,395	6,532	8,041	8,263	8,135
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	23	134	75	73	70	69	63	71	71	91	155
subtotal	9,475	11,131	8,810	7,106	6,840	7,916	7,458	6,603	8,112	8,353	8,290
Manure CH4	1,852,696	2,061,534	2,223,354	2,211,233	2,261,946	2,314,694	2,399,853	2,480,494	2,520,369	2,521,990	2,543,440
Ruminants CH4	4,771,304	4,618,748	4,471,202	4,459,867	4,457,612	4,408,743	4,329,414	4,292,492	4,186,169	4,171,811	4,212,596
Wild Rice CH4	127,143	127,143	130,579	127,143	123,706	123,706	113,397	75,598	106,525	103,089	114,085
Wildfire CH4	19,051	18,096	40,914	27,761	55,796	8,425	35,254	153,140	45,470	26,450	70,558

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
subtotal	6,779,668	6,836,652	6,874,858	6,833,109	6,905,900	6,863,485	6,885,377	7,008,328	6,866,645	6,831,692	6,948,969
CO2											
Energy CO2											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	3,103,964	3,405,355	2,692,527	2,221,319	2,190,212	2,487,727	2,602,721	2,177,177	2,752,272	2,789,377	2,751,411
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	3,103,964	3,405,355	2,692,527	2,221,319	2,190,212	2,487,727	2,602,721	2,177,177	2,752,272	2,789,377	2,751,411
Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-
Erosion CO2	107,560	116,805	103,712	97,562	95,994	87,239	87,018	83,071	81,853	80,224	81,494
Histosol Cultivation CO2	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284	5,158,284
Liming of Fields CO2	47,423	54,811	65,535	70,063	74,591	47,185	32,172	32,887	36,223	33,760	33,760
Mineral Wetlands Cultivation CO2	-	-	-	-	-	-	-	-	-	-	-
Urea Applications CO2	315,406	345,876	347,121	345,596	367,136	308,492	418,464	407,257	387,828	393,617	368,115
subtotal	8,732,638	9,081,131	8,367,180	7,892,824	7,886,218	8,088,928	8,298,659	7,858,676	8,416,460	8,455,263	8,393,065
CO											
Energy CO	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Energy CO as CO2	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Total	23,980,173	24,225,200	23,920,293	23,190,754	22,792,158	22,341,101	23,386,071	23,426,081	23,453,759	23,751,323	23,524,194
Commercial											
N2O											
Energy											
Coal	1,608	1,423	985	586	397	505	585	526	501	543	484
Oil	1,580	1,393	1,273	1,164	1,291	1,790	1,288	1,269	1,508	1,858	1,318
Natural gas	3,094	2,895	2,603	2,783	3,001	2,947	3,273	3,177	3,021	3,019	2,760
Other	1,579	1,504	1,317	1,381	1,474	1,569	1,607	1,676	1,640	1,637	1,641



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
subtotal	7,861	7,214	6,177	5,914	6,163	6,811	6,753	6,648	6,670	7,057	6,204
Medical Uses	8,045	8,608	8,598	8,606	9,190	8,613	8,020	8,000	7,977	7,948	7,935
subtotal	15,906	15,822	14,775	14,520	15,353	15,424	14,773	14,647	14,647	15,005	14,139
CH4											
Energy											
Coal	899	796	551	328	222	282	327	294	280	304	271
Oil	2,540	2,258	1,996	1,897	2,108	2,769	2,056	2,100	2,399	2,878	2,112
Natural gas	12,978	12,142	10,918	11,675	12,588	12,362	13,730	13,325	12,673	12,665	11,578
Other	9,914	9,428	8,249	8,673	9,260	9,818	10,056	10,473	10,241	10,219	10,224
subtotal	26,331	24,624	21,714	22,573	24,178	25,232	26,169	26,193	25,593	26,065	24,184
subtotal	26,331	24,624	21,714	22,573	24,178	25,232	26,169	26,193	25,593	26,065	24,184
CO2											
Energy											
Coal	347,899	305,344	211,844	126,064	86,291	109,753	127,191	114,329	109,038	118,158	105,396
Oil	863,381	772,106	661,171	652,115	725,511	904,956	692,536	731,904	805,756	943,285	713,500
Natural gas	5,781,235	5,408,801	4,863,780	5,200,936	5,607,669	5,507,051	6,116,162	5,935,926	5,645,567	5,641,869	5,157,479
Other	62	38	112	147	19	-	-	-	-	-	-
subtotal	6,992,577	6,486,289	5,736,906	5,979,263	6,419,491	6,521,760	6,935,888	6,782,158	6,560,361	6,703,311	5,976,376
Limestone use	-	-	-	-	1,624	1,173	1,432	1,295	1,208	1,488	-
Solvent uses	104,122	104,808	105,368	83,939	84,130	86,001	73,233	73,233	73,233	73,233	73,233
subtotal	7,096,699	6,591,096	5,842,274	6,063,202	6,505,244	6,608,934	7,010,553	6,856,686	6,634,801	6,778,032	6,049,609
CO											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Total	7,138,936	6,631,542	5,878,763	6,100,294	6,544,775	6,649,590	7,051,496	6,897,526	6,675,042	6,819,102	6,087,932
Electricity Generation											
N2O											
Energy											
Coal	89,527	89,489	89,407	87,900	93,673	93,795	102,401	101,687	94,995	97,547	90,609.98
Oil	29,378	35,141	29,455	35,565	34,839	27,057	28,768	36,664	34,032	31,237	21,366.95
Natural gas	3,713	6,180	11,456	9,264	6,133	5,431	8,328	12,038	10,401	16,971	17,863.03
Other	56,329	57,999	57,235	55,858	56,251	55,109	57,364	57,869	61,278	61,582	57,891.18
subtotal	178,946	188,810	187,553	188,589	190,896	181,391	196,862	208,258	200,706	207,337	187,731.14
Energy-Net Electricity Imports	55,845	62,539	55,605	57,420	54,884	65,682	49,323	49,730	56,922	58,505	62,490.47
subtotal	234,790	251,349	243,158	246,009	245,780	247,074	246,185	257,988	257,629	265,842	250,221.60
CH4											
Energy											
Coal	5,898	5,945	6,224	5,891	6,430	6,188	6,895	7,035	6,866	6,887	6,931.29
Oil	322	421	341	398	399	349	301	428	384	377	251.18
Natural gas	722	981	1,719	1,389	1,257	1,283	1,431	1,861	1,099	2,377	2,714.76
Other	5,402	5,107	5,696	5,850	6,550	5,510	5,220	6,744	6,286	4,686	6,187.83
subtotal	12,344	12,454	13,980	13,529	14,636	13,330	13,847	16,068	14,636	14,327	16,085.06
Hydroelectric	5,310	5,310	5,310	5,310	5,310	5,310	5,310	5,310	5,310	5,310	5,310.12
Coal storage	17,636	16,898	16,589	15,917	18,001	19,705	18,075	23,821	18,523	19,007	18,204.31
Energy-Net Electricity Imports	11,013	11,481	10,637	10,582	10,910	13,885	9,328	10,793	10,910	10,904	13,181.57
subtotal	46,304	46,143	46,516	45,338	48,857	52,230	46,560	55,993	49,379	49,547	52,781.05

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
CO2											
Energy											
Coal	34,387,668	34,546,786	35,593,142	34,105,086	37,080,536	36,192,596	39,681,111	40,564,760	38,930,438	39,039,016	38,172,671.06
Oil	811,713	1,011,971	826,810	962,327	953,765	817,720	751,489	1,045,016	959,035	909,783	608,523.49
Natural gas	568,759	715,948	1,202,172	1,123,081	728,213	751,395	1,013,703	1,263,183	1,066,444	1,759,890	1,937,838.61
Other	610,484	642,068	637,873	609,264	614,008	598,196	633,766	624,219	615,607	625,272	577,639.35
subtotal	36,378,624	36,916,773	38,259,996	36,799,759	39,376,523	38,359,908	42,080,070	43,497,179	41,571,524	42,333,961	41,296,672.51
FGD	1,820	1,827	1,447	1,477	2,353	3,182	2,342	2,168	2,375	2,333	2,242.32
Energy-Net Electricity Imports	11,613,770	12,504,347	11,589,941	11,383,845	11,481,668	14,091,081	10,687,352	10,531,203	11,958,868	12,117,107	13,942,488.92
subtotal	47,994,214	49,422,947	49,851,384	48,185,081	50,860,544	52,454,170	52,769,764	54,030,549	53,532,767	54,453,400	55,241,403.75
CO											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Energy-Net Electricity Imports	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
SF6											
Energy	606,368.81	594,402.20	593,012.14	349,462.15	313,167.00	316,404.20	324,691.44	332,978.68	338,255.32	343,531.96	343,531.96

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Energy-Net Electricity Imports	189,232.77	196,882.12	175,814.39	106,402.09	90,037.28	114,571.01	81,350.67	79,512.77	95,932.85	96,935.67	114,352.22
subtotal	795,601.58	791,284.33	768,826.53	455,864.24	403,204.28	430,975.21	406,042.10	412,491.45	434,188.17	440,467.63	457,884.18
Total	49,070,910	50,511,723	50,909,884	48,932,292	51,558,385	53,184,449	53,468,551	54,757,021	54,273,962	55,209,258	56,002,290.58

Waste
N2O
Energy
Associated Incinerator Fuels
Bituminous coal
Wood
Natural gas-steam
Residual fuel oil
Waste oil
Waste solvent
Propane
Distillate fuel oil-steam
Natural gas-internal combustion engine
Distillate fuel oil-internal combustion engine
subtotal
Waste Processing
Landfill Operations (energy)
Yard Waste Preprocessing (energy)
MMSW Compost Preprocessing (energy)
MRF (energy)
RDF Processing (energy)
Incinerator Ash Disposal (energy)
subtotal
Coal
Petroleum
Natural Gas

-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	34	145	74	-	-	-	-	-	-
107	75	104	38	-	-	-	-	-	-	-	-
275	311	126	144	160	124	118	187	188	74	68	
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
32	60	39	18	0	-	-	4	1	0	0	
16	6	4	3	4	1	1	7	5	2	1	
-	-	-	-	-	-	-	-	-	-	-	-
1	1	1	2	1	2	2	1	3	4	4	
431	454	274	240	310	201	122	198	197	79	73	
-	-	-	-	-	-	-	-	-	-	-	-
70	94	107	120	117	120	119	122	131	139	142	
22	22	22	22	22	22	22	22	22	22	22	
3	2	1	1	1	1	1	1	1	1	1	
56	59	62	65	67	67	68	69	72	73	75	
20	21	22	20	19	18	20	19	19	19	17	
0	0	0	0	0	-	-	-	-	-	-	-
171	198	215	228	226	229	230	233	245	255	257	
-	-	-	34	145	74	-	-	-	-	-	-
220	266	259	251	232	232	234	245	253	261	261	
275	311	126	144	160	124	118	187	188	74	68	

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Incinerated Waste	1,720	2,018	2,379	1,279	616	542	410	445	375	1,579	1,690
Other	107	75	104	38	-	-	-	-	-	-	-
energy subtotal	2,322	2,671	2,868	1,746	1,152	971	762	876	817	1,914	2,019
Incinerated Waste											
Waste Sector RDF	969	1,354	1,757	684	-	-	-	-	-	-	-
Waste Sector Mass Burn	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration	750	664	622	595	616	542	410	445	375	1,579	1,690
subtotal	1,720	2,018	2,379	1,279	616	542	410	445	375	1,579	1,690
Other Sources	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	16	22	17	28	27	19	24	30	33	42	31
Rural Open Burning	3,927	3,600	3,462	3,556	4,294	3,902	3,685	3,620	3,600	3,529	3,423
Medical Waste Incineration	117	112	80	71	50	53	41	33	44	43	43
Misc. Industrial/Comm Waste Incineration	188	170	-	-	-	-	-	-	-	-	-
Municipal Wastewater	108,862	111,861	115,783	120,044	121,090	121,747	123,651	123,943	126,818	124,791	125,316
Biosolids Land Application	21,576	21,005	17,955	19,208	20,620	19,449	21,578	23,869	22,605	27,406	27,437
MMSW Waste Composting	12,877	7,109	4,131	4,532	3,341	3,280	3,404	3,905	5,158	4,948	3,622
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-
other subtotal	147,563	143,880	141,427	147,439	149,421	148,448	152,384	155,401	158,258	160,758	159,873
subtotal	149,885	146,550	144,295	149,185	150,573	149,420	153,146	156,277	159,075	162,672	161,892
CH4											
Energy											
Associated Incinerator Fuels	-	-	-	-	-	-	-	-	-	-	-
Bituminous coal	-	-	-	10	40	21	-	-	-	-	-
Wood	14	10	14	5	-	-	-	-	-	-	-
Natural gas-steam	23	26	11	12	13	10	10	16	16	6	6
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-
Propane	1	1	1	0	0	-	-	0	0	0	0

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Distillate fuel oil-steam	1	0	0	0	0	0	0	0	0	0	0
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	0	0	0	0	0	0	0	0	1	1	1
subtotal	39	38	25	27	54	31	10	16	17	7	6
Waste Processing	-	-	-	-	-	-	-	-	-	-	-
Landfill Operations (energy)	13	17	20	22	21	22	22	22	24	26	26
Yard Waste Preprocessing (energy)	4	4	4	4	4	4	4	4	4	4	4
MMSW Compost Preprocessing (energy)	1	0	0	0	0	0	0	0	0	0	0
MRF (energy)	10	11	11	12	12	12	13	13	13	14	14
RDF Processing (energy)	4	4	4	4	4	3	4	4	3	4	3
Incinerator Ash Disposal (energy)	0	0	0	0	0	-	-	-	-	-	-
subtotal	32	36	40	42	42	42	42	43	45	47	47
Coal	-	-	-	10	40	21	-	-	-	-	-
Petroleum	33	38	41	43	42	42	43	43	46	48	48
Natural Gas	23	26	11	12	13	10	10	16	16	6	6
Incinerated Waste	7,900	7,709	7,320	7,220	7,177	7,354	6,580	7,140	6,029	4,073	4,299
Other	14	10	14	5	-	-	-	-	-	-	-
energy subtotal	7,970	7,783	7,385	7,289	7,273	7,428	6,632	7,199	6,091	4,127	4,352
Incinerated Waste											
Waste Sector RDF (energy)	1	1	2	1	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	7,899	7,708	7,319	7,219	7,177	7,354	6,580	7,140	6,029	4,073	4,299
subtotal	7,900	7,709	7,320	7,220	7,177	7,354	6,580	7,140	6,029	4,073	4,299
Other Sources	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	16,498	18,841	18,413	19,499	18,787	17,814	18,248	20,707	20,779	19,733	19,404
Rural Open Burning	14,277	13,088	12,585	12,927	15,610	14,185	13,397	13,161	13,088	12,828	12,445
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-
Municipal Wastewater	426,986	432,452	437,927	444,378	450,950	455,170	458,165	460,732	463,074	465,642	469,353
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MMSW composting	15,920	8,789	5,108	5,603	4,130	4,055	4,209	4,828	6,377	6,117	4,478
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	3,926,933	3,719,741	3,603,562	3,516,778	3,442,931	3,356,458	3,029,892	2,742,758	2,461,180	2,382,282	2,285,748
Industrial Landfills	102,462	116,595	118,382	120,201	121,708	131,908	141,936	141,050	145,484	148,645	151,511
D/C Landfills	-	-	-	-	-	-	-	-	-	-	-
other subtotal	4,503,076	4,309,506	4,195,976	4,119,385	4,054,116	3,979,589	3,665,846	3,383,236	3,109,982	3,035,247	2,942,939
subtotal	4,511,046	4,317,289	4,203,362	4,126,675	4,061,389	3,987,016	3,672,478	3,390,435	3,116,073	3,039,374	2,947,292

CO2

Energy
Associated Incinerator Fuels
Bituminous coal
Natural gas-steam
Residual fuel oil
Waste oil
Waste solvent
Propane
Distillate fuel oil-steam
Natural gas-internal combustion engine
Distillate fuel oil-internal combustion engine
subtotal
Waste Processing
Landfill Operations (energy)
Yard Waste Preprocessing (energy)
MMSW Compost Preprocessing (energy)
MRF (energy)
RDF Processing (energy)
Incinerator Ash Disposal (energy)
Hazardous Waste (energy)
subtotal

-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	14,237	59,782	30,491	-	-	-	-	-	-
54,147	61,403	24,884	28,411	31,500	24,426	23,331	36,842	37,160	14,524	13,334	
4,885	6,451	9,711	11,770	9,945	27,442	7,557	407	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
11,266	12,006	-	10,932	3,320	12,697	30,261	36,371	31,230	30,002	39,035	
1,680	3,169	2,045	962	16	-	-	201	39	4	4	
9,780	3,787	2,406	2,465	3,089	992	1,565	7,435	5,183	2,097	1,628	
-	-	-	-	-	-	-	-	-	-	-	
134	160	163	219	141	205	269	128	369	447	464	
81,891	86,976	39,209	68,997	107,793	96,253	62,983	81,384	73,981	47,073	54,465	
-	-	-	-	-	-	-	-	-	-	-	
9,212	12,237	14,061	15,713	15,286	15,707	15,581	15,975	17,103	18,106	18,220	
2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,891	2,851	
391	216	126	138	102	100	103	119	157	150	108	
7,322	7,763	8,165	8,455	8,795	8,787	8,897	9,018	9,392	9,571	9,602	
2,588	2,801	2,871	2,588	2,546	2,407	2,609	2,512	2,448	2,492	2,214	
3	3	4	1	0	-	-	-	-	-	-	
31,913	16,875	15,335	7,112	39,347	60,777	55,462	62,217	54,249	45,532	52,419	
54,334	42,800	43,467	36,913	68,982	90,684	85,559	92,746	86,254	78,741	85,414	



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coal	-	-	-	14,237	59,782	30,491	-	-	-	-	-
Petroleum	70,813	56,367	57,792	52,330	82,173	119,323	94,950	100,917	91,845	81,289	87,510
Natural Gas	54,147	61,403	24,884	28,411	31,500	24,426	23,331	36,842	37,160	14,524	13,334
Incinerated Waste	13,460	18,806	24,396	9,492	-	-	-	-	-	-	-
Other	11,266	12,006	-	10,932	3,320	12,697	30,261	36,371	31,230	30,002	39,035
energy subtotal	149,686	148,582	107,072	115,403	176,775	186,936	148,542	174,130	160,235	125,814	139,879
Incinerated Waste											
Waste Sector RDF (energy)	13,460	18,806	24,396	9,492	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-
subtotal	13,460	18,806	24,396	9,492	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-	-	-	-
LFG Combustion/Flaring	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	35,441	32,915	32,060	33,352	40,275	36,597	34,564	33,956	33,768	33,096	32,109
Medical Waste Incineration	10,577	10,188	7,215	6,388	4,491	4,780	3,712	3,029	3,990	3,906	3,906
Misc. Industrial/Comm Waste Incineration	2,549	2,334	-	-	-	-	-	-	-	-	-
Municipal Wastewater	-	-	-	-	-	-	-	-	-	-	-
Biosolids Land Application	-	-	-	-	-	-	-	-	-	-	-
MMSW composting	-	-	-	-	-	-	-	-	-	-	-
Yard waste composting	-	-	-	-	-	-	-	-	-	-	-
City Dumps	-	-	-	-	-	-	-	-	-	-	-
limestone use	-	-	-	-	-	-	-	-	-	-	-
Sequestration in deomition/conztruction landfills	(1,306,399)	(1,370,791)	(1,432,998)	(1,493,020)	(1,550,858)	(1,606,511)	(1,659,979)	(1,711,263)	(1,760,363)	(1,807,277)	(1,852,007)
other subtotal	(1,257,833)	(1,325,355)	(1,393,722)	(1,453,279)	(1,506,092)	(1,565,134)	(1,621,704)	(1,674,278)	(1,722,605)	(1,770,276)	(1,815,993)
subtotal	(1,108,147)	(1,176,772)	(1,286,651)	(1,337,877)	(1,329,316)	(1,378,198)	(1,473,162)	(1,500,148)	(1,562,371)	(1,644,462)	(1,676,113)
CO											
Energy											
Associated Incinerator Fuels											
Bituminous coal	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Wood	-	-	-	-	-	-	-	-	-	-	-
Natural gas-steam	-	-	-	-	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-	-	-	-	-
Waste oil	-	-	-	-	-	-	-	-	-	-	-
Waste solvent	-	-	-	-	-	-	-	-	-	-	-
Propane	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-steam	-	-	-	-	-	-	-	-	-	-	-
Natural gas-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-
Distillate fuel oil-internal combustion engine	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Waste Processing											
Landfill Operations (energy)	-	-	-	-	-	-	-	-	-	-	-
Yard Waste Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-
MMSW Compost Preprocessing (energy)	-	-	-	-	-	-	-	-	-	-	-
MRF (energy)	-	-	-	-	-	-	-	-	-	-	-
RDF Processing (energy)	-	-	-	-	-	-	-	-	-	-	-
Incinerator Ash Disposal (energy)	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste (energy)	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-
Petroleum	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
energy subtotal	-	-	-	-	-	-	-	-	-	-	-
Incinerated Waste											
Waste Sector RDF (energy)	-	-	-	-	-	-	-	-	-	-	-
Waste Sector Mass Burn (energy)	-	-	-	-	-	-	-	-	-	-	-
Sludge Incineration (energy)	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Other Sources											
LFG Flaring	-	-	-	-	-	-	-	-	-	-	-
Rural Open Burning	-	-	-	-	-	-	-	-	-	-	-
Medical Waste Incineration	-	-	-	-	-	-	-	-	-	-	-
Misc. Industrial/Comm Waste Incineration	-	-	-	-	-	-	-	-	-	-	-
MMSW Landfills	-	-	-	-	-	-	-	-	-	-	-
Soil Roasting	-	-	-	-	-	-	-	-	-	-	-
Hazardous Waste	-	-	-	-	-	-	-	-	-	-	-
other subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Fossil CO Oxidation	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Total	3,552,784	3,287,067	3,061,006	2,937,983	2,882,646	2,758,238	2,352,462	2,046,563	1,712,777	1,557,585	1,433,070
Residential											
N2O											
Energy											
Coal	21	18	16	14	11	11	11	11	11	11	11
Oil	4,769	4,269	3,403	2,785	3,229	3,410	2,872	3,235	3,708	3,313	2,718
Natural gas	4,516	4,092	3,509	3,780	4,109	3,940	4,256	4,347	4,187	4,061	3,719
Other	16,658	16,357	16,056	15,755	15,454	15,153	14,852	14,551	14,551	14,551	14,551
subtotal	25,963	24,735	22,984	22,334	22,803	22,515	21,991	22,144	22,457	21,936	20,999
Lawn Fertilizer	22,688	22,432	17,008	20,163	23,511	30,672	33,264	33,680	33,484	32,544	32,425
subtotal	48,651	47,167	39,991	42,497	46,314	53,187	55,255	55,824	55,941	54,480	53,425
CH4											
Energy											
Coal	347	308	270	231	193	193	193	193	193	193	193

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Oil	8,549	7,751	5,995	5,425	6,225	6,269	5,459	6,366	6,826	6,217	5,317
Natural gas	18,942	17,163	14,721	15,857	17,235	16,529	17,852	18,234	17,562	17,033	15,600
Other	104,810	102,916	101,022	99,127	97,233	95,339	93,445	91,551	91,551	91,551	91,551
subtotal	132,648	128,138	122,008	120,641	120,886	118,330	116,950	116,344	116,132	114,994	112,662
subtotal	132,648	128,138	122,008	120,641	120,886	118,330	116,950	116,344	116,132	114,994	112,662
CO2											
Energy											
Coal	4,322	3,841	3,361	2,881	2,401	2,401	2,401	2,401	2,401	2,401	2,401
Oil	3,170,751	2,902,243	2,194,223	2,133,399	2,431,476	2,368,121	2,112,178	2,520,487	2,581,508	2,384,111	2,097,053
Natural gas	8,448,238	7,648,207	6,558,553	7,064,726	7,679,065	7,364,864	7,952,890	8,123,370	7,824,564	7,589,718	6,949,734
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	11,623,310	10,554,292	8,756,137	9,201,006	10,112,943	9,735,386	10,067,469	10,646,258	10,408,473	9,976,230	9,049,187
Soaps, detergents, shampoos	82,920	86,662	86,554	80,858	82,877	90,567	98,040	92,041	89,865	89,537	108,406
Food additives	13,499	15,407	13,464	15,401	17,346	17,343	17,301	17,258	17,208	17,145	17,117
Carbon sequestration in housing units	(918,522)	(971,435)	(966,238)	(978,599)	(1,005,823)	(686,339)	(1,544,869)	(1,734,896)	(1,675,477)	(2,095,570)	(1,559,312)
subtotal	10,801,207	9,684,925	7,889,917	8,318,666	9,207,343	9,156,956	8,637,941	9,020,661	8,840,069	7,987,344	7,615,398
CO											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Ethane											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
HFC-152a/HFC-134a											
Aerosol use	185,213	205,750	199,266	205,682	210,076	214,189	219,902	223,486	229,036	232,313	238,081
subtotal	185,213	205,750	199,266	205,682	210,076	214,189	219,902	223,486	229,036	232,313	238,081
HFC-134a											
Refrigeration	305	414	524	635	747	860	1,049	1,245	1,448	1,658	1,840
subtotal	305	414	524	635	747	860	1,049	1,245	1,448	1,658	1,840
Total	11,168,024	10,066,394	8,251,706	8,688,121	9,585,366	9,543,521	9,031,096	9,417,560	9,242,627	8,390,788	8,021,406
Industrial											
N2O											
Energy											
Stationary source											
Coal	12,554	13,959	13,092	14,918	16,949	10,977	9,933	10,909	11,831	12,245	12,843
Oil	9,697	9,604	9,863	9,768	10,564	10,874	10,557	10,239	10,860	11,281	10,215
Natural gas	3,109	3,215	3,105	3,060	3,264	2,845	2,872	2,834	2,888	2,874	3,015
Other	18,712	18,485	19,456	21,904	21,535	24,663	24,229	23,296	24,983	26,019	28,389
subtotal	44,073	45,264	45,517	49,650	52,312	49,359	47,591	47,279	50,563	52,420	54,462
Off-highway vehicle											
Oil	5,685	4,861	4,422	4,190	4,098	5,465	5,521	7,004	8,321	8,537	7,061
Other	24	32	33	17	18	63	71	82	89	118	189

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
subtotal	5,710	4,893	4,455	4,207	4,116	5,528	5,592	7,086	8,410	8,655	7,250
subtotal	49,783	50,157	49,972	53,857	56,427	54,887	53,184	54,365	58,972	61,075	61,712
subtotal	49,783	50,157	49,972	53,857	56,427	54,887	53,184	54,365	58,972	61,075	61,712
CH4											
Energy											
Stationary source											
Coal	7,021	7,807	7,322	8,344	9,479	6,139	5,556	6,101	6,617	6,848	7,183
Oil	5,268	5,387	5,441	5,064	5,710	6,002	5,681	5,463	5,840	6,113	5,649
Natural gas	2,608	2,697	2,605	2,567	2,738	2,387	2,410	2,377	2,423	2,411	2,529
Other	9,913	9,770	10,186	11,110	10,930	12,573	12,260	11,427	11,632	12,856	13,714
subtotal	24,810	25,661	25,554	27,085	28,857	27,100	25,906	25,369	26,512	28,229	29,075
Off-highway vehicle											
Oil	1,050	898	817	773	756	1,013	1,024	1,296	1,539	1,578	1,306
Other	5	6	6	3	3	12	14	16	17	22	35
subtotal	1,054	904	823	776	759	1,025	1,037	1,312	1,556	1,600	1,342
subtotal	25,865	26,565	26,377	27,860	29,616	28,125	26,943	26,681	28,068	29,829	30,417
Coal storage	4,620	4,873	1,774	2,055	2,439	1,831	1,545	1,444	1,616	2,000	1,981
Oil Refining	28,115	26,357	24,546	24,534	38,010	38,757	38,758	38,730	37,482	42,545	37,910
Peat mining	7,299	10,583	10,948	12,408	27,371	30,291	23,357	21,897	22,992	24,816	25,181
Industrial wastewater treatment	109,913	116,924	116,356	112,954	112,477	110,981	121,160	126,098	120,659	125,935	127,469
subtotal	175,812	185,303	180,002	179,812	209,914	209,985	211,763	214,849	210,816	225,126	222,958
CO2											
Energy											
Coal	2,702,308	3,005,628	2,851,438	3,247,710	3,687,777	2,387,406	2,161,330	2,376,450	2,576,587	2,663,398	2,794,460
Oil	5,478,235	5,443,812	5,472,737	5,179,082	5,528,965	5,586,367	5,590,557	5,666,928	6,311,328	6,353,458	5,764,059
Natural gas	5,810,052	6,008,223	5,802,093	5,717,828	6,099,239	5,315,933	5,367,012	5,295,519	5,397,264	5,371,229	5,632,961
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	13,990,594	14,457,663	14,126,267	14,144,621	15,315,981	13,289,705	13,118,898	13,338,896	14,285,180	14,388,086	14,191,480
Taconite induration	1,877,575	1,881,500	1,910,562	1,775,508	1,875,657	1,429,172	1,751,199	1,492,003	1,610,520	1,555,147	1,573,427
Steel production	-	-	-	9,741	7,598	5,199	6,685	6,347	6,938	3,078	4,236

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Ammonia Manufacture	32,400	-	-	-	-	-	-	-	-	-	-
Glass manufacture	7,889	7,973	8,417	8,645	12,056	12,265	12,588	13,239	12,105	28,233	19,425
Peat Mining/Use	27,865	40,405	41,798	47,371	104,495	115,642	89,169	83,596	87,776	94,743	96,136
Industrial solvent release	32,567	33,111	32,515	26,917	25,894	26,011	24,696	24,696	24,696	24,696	24,696
Other industrial VOC and TRI releases	338,205	339,233	273,752	234,805	235,223	242,971	108,545	107,579	107,267	107,044	105,718
subtotal	16,307,096	16,759,886	16,393,311	16,247,608	17,576,905	15,120,966	15,111,782	15,066,357	16,134,482	16,201,027	16,015,118
CO											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	-	-	-	-	-	-	-	-	-	-	-
Other industrial process	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Energy											
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Oil Refining	90,178	92,584	90,191	3,456	3,442	3,442	11,243	11,243	11,243	11,243	11,243
Other industrial process	9,933	10,238	9,980	4,083	4,279	5,380	13,173	13,173	13,174	13,174	13,174
subtotal	100,111	102,822	100,171	7,540	7,722	8,822	24,416	24,417	24,417	24,417	24,417
HFCs											
Industrial refrigeration											
Food processing											
Insulating foam manufacture											

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Boat buidling											
subtotal											
PFCs, HFCs, HFEs											
Solvent	48,655	53,449	55,809	55,860	51,061	51,700	53,955	53,628	48,316	31,243	31,191
subtotal	48,655	53,449	55,809	55,860	51,061	51,700	53,955	53,628	48,316	31,243	31,191
PFCs											
Semiconductor Mfr	38,464	45,918	40,717	38,693	47,977	47,169	44,099	41,773	33,471	46,077	50,352
subtotal	38,464	45,918	40,717	38,693	47,977	47,169	44,099	41,773	33,471	46,077	50,352
SF6											
Magnesium casting											
subtotal											
Total	16,719,920	17,197,535	16,819,982	16,583,369	17,950,005	15,493,529	15,499,199	15,455,388	16,510,475	16,588,964.5	16,405,746.8
Transportation											
N2O											
Passenger Cars	476,065	498,060	494,406	489,010	469,437	441,220	415,966	384,360	355,370	319,871	298,660
Light-Duty Trucks	481,327	542,513	556,928	555,119	551,869	520,025	493,760	450,164	420,300	380,412	318,259
Heavy-Duty Trucks	20,418	22,024	21,780	21,310	20,440	18,942	17,530	18,406	18,535	18,121	17,782
School Bus	650	635	618	623	1,221	1,225	1,206	1,197	1,209	1,186	1,133
Transit Bus	66	78	82	86	97	103	120	118	101	107	108
Motorcycle	708	823	866	829	888	787	794	815	876	882	1,024
RV	3,312	3,294	3,231	3,023	2,795	2,541	2,410	2,256	2,117	1,889	1,651
Other Bus	1	1	1	1	1	1	1	1	1	1	1
Railroad	6,114	6,355	7,793	5,227	5,303	4,602	4,455	4,658	5,809	7,219	7,079
Vessel Bunkering/Marine	2,789	2,642	2,665	3,084	3,740	3,424	4,485	3,741	4,091	4,848	5,479
Military and Other Off-highway	60	2,929	2,854	122	47	271	19	2,288	15	10	3,963
Other	-	-	-	-	-	-	-	-	-	-	-
Aviation	41,347	43,162	46,018	42,593	52,853	47,509	43,776	44,073	46,743	47,305	41,476
Natural Gas Transmission	7,387	7,134	7,232	7,890	7,316	6,441	7,780	7,162	7,120	7,767	7,166
subtotal	1,040,243	1,129,648	1,144,475	1,128,917	1,116,007	1,047,089	992,303	919,239	862,287	789,616	703,781



Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	994,830	1,082,865	1,097,345	1,081,712	1,070,276	1,004,579	950,419	878,276	821,501	751,261	669,244
Natural Gas	7,387	7,134	7,232	7,890	7,316	6,441	7,780	7,162	7,120	7,767	7,166
Other	38,026	39,650	39,898	39,316	38,416	36,069	34,104	33,801	33,667	30,589	27,372
CH4											
Passenger Cars	45,797	45,985	44,009	40,787	38,007	35,111	32,441	29,548	27,441	24,914	22,940
Light-Duty Trucks	36,931	38,762	37,289	35,339	33,688	31,059	28,932	26,419	24,735	22,861	19,977
Heavy-Duty Trucks	5,066	5,131	4,389	3,765	3,220	2,601	2,169	1,983	1,843	1,755	1,650
School Bus	153	150	146	147	123	124	122	121	122	120	114
Transit Bus	6	7	7	8	8	9	11	10	9	10	10
Motorcycle	598	695	732	701	751	664	670	689	740	745	865
RV	156	155	153	143	133	122	116	110	104	94	83
Other Bus	0	0	0	0	0	0	0	0	0	0	0
Railroad	1,578	1,640	2,011	1,349	1,369	1,188	1,150	1,202	1,499	1,863	1,827
Vessel Bunkering/Marine	677	642	648	748	903	827	1,084	908	986	1,173	1,321
Military and Other Off-highway	11	553	539	23	9	51	4	432	3	2	748
Other	-	-	-	-	-	-	-	-	-	-	-
Aviation	4,123	4,270	4,245	4,231	4,930	4,408	4,536	4,130	4,307	4,388	3,888
Natural Gas Transmission	1,147,238	1,153,845	1,118,681	1,136,646	1,146,886	1,100,916	1,142,490	1,144,630	1,157,134	1,176,583	1,155,459
subtotal	1,242,334	1,251,837	1,212,848	1,223,888	1,230,028	1,177,080	1,213,725	1,210,182	1,218,923	1,234,507	1,208,883
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	91,662	94,566	90,913	84,240	80,329	73,588	68,844	63,149	59,441	55,741	51,391
Natural Gas	1,147,238	1,153,845	1,118,681	1,136,646	1,146,886	1,100,916	1,142,490	1,144,630	1,157,134	1,176,583	1,155,459
Other	3,435	3,425	3,254	3,002	2,813	2,576	2,390	2,404	2,349	2,183	2,034
CO2											
Passenger Cars	11,205,241	10,341,048	10,780,871	11,460,117	11,562,550	12,113,998	12,188,457	12,097,009	11,815,598	11,601,646	11,081,940
Light-Duty Trucks	9,551,799	9,506,640	10,318,144	10,993,106	11,340,957	12,140,749	12,576,372	12,546,669	12,992,052	12,824,656	12,863,892
Heavy-Duty Trucks	5,587,661	5,439,697	5,416,106	5,751,939	6,086,201	6,028,807	6,214,456	6,375,832	6,265,628	6,233,692	6,213,705
School Bus	163,861	189,757	185,485	187,204	189,810	190,961	187,918	186,549	187,987	183,624	173,862
Transit Bus	104,005	127,093	133,313	142,755	146,001	154,078	180,665	172,394	136,925	147,512	139,653

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Motorcycle	53,925	54,425	59,629	57,827	62,884	57,377	57,836	59,317	62,269	62,738	74,979
RV	200,561	187,760	197,391	198,653	198,124	196,234	200,055	202,131	203,908	198,441	191,173
Other Bus	34	30	31	31	32	33	33	32	32	32	33
Railroad	800,074	831,590	1,019,690	683,969	693,960	602,162	582,974	609,527	760,076	944,622	926,361
Vessel Bunkering/Marine	363,739	338,986	342,726	396,987	488,315	447,363	585,446	478,341	531,903	624,432	705,579
Military and Other Off-highway	7,488	374,052	365,703	15,344	5,901	34,008	2,486	289,809	2,067	1,279	499,351
Other	-	-	-	-	-	-	-	-	-	-	-
Aviation	4,310,972	4,499,216	4,788,244	4,440,491	5,501,030	4,944,095	4,569,084	4,587,725	4,863,591	4,922,806	4,317,417
Natural Gas Transmission	1,187,048	1,172,512	1,207,594	1,322,452	1,259,194	1,137,101	1,371,025	1,207,240	1,221,319	1,327,986	1,219,863
subtotal	33,536,408	33,062,806	34,814,927	35,650,876	37,534,960	38,046,966	38,716,806	38,812,578	39,043,356	39,073,467	38,407,807
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	32,334,064	31,875,059	33,591,729	34,311,964	36,258,676	36,891,841	37,327,376	37,585,708	37,801,581	37,729,272	37,171,542
Natural Gas	1,189,599	1,174,826	1,210,028	1,325,482	1,262,566	1,141,169	1,375,201	1,212,363	1,227,030	1,329,107	1,221,109
Other	12,745	12,921	13,170	13,430	13,717	13,956	14,229	14,506	14,745	15,088	15,156
CO											
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-
Otherl Bus	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors
Activity: Energy
Activity: Agriculture
Activity: Other
Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
CO as CO2											
Passenger Cars	-	-	-	-	-	-	-	-	-	-	-
Light-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Trucks	-	-	-	-	-	-	-	-	-	-	-
School Bus	-	-	-	-	-	-	-	-	-	-	-
Transit Bus	-	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-	-
RV	-	-	-	-	-	-	-	-	-	-	-
Other Bus	-	-	-	-	-	-	-	-	-	-	-
Railroad	-	-	-	-	-	-	-	-	-	-	-
Vessel Bunkering/Marine	-	-	-	-	-	-	-	-	-	-	-
Military and Other Off-highway	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Aviation	-	-	-	-	-	-	-	-	-	-	-
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Ethane											
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
Propane											
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-

Data Summary for Greenhouse Gas Emissions in M

All values converted from nominal tons to CO2-e to

Key:

Economic Sectors

Activity: Energy

Activity: Agriculture

Activity: Other

Activity: Waste

Gases divided within each economic sector

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Butane											
Natural Gas Transmission	-	-	-	-	-	-	-	-	-	-	-
subtotal	-	-	-	-	-	-	-	-	-	-	-
HFC-134a											
MAC	146,796	231,194	305,861	409,137	489,055	557,017	609,474	650,200	683,585	696,573	723,692
subtotal	146,796	231,194	305,861	409,137	489,055	557,017	609,474	650,200	683,585	696,573	723,692
Total	35,965,782	35,675,485	37,478,111	38,412,817	40,370,050	40,828,152	41,532,308	41,592,199	41,808,152	41,794,163	41,044,164
Total	147,596,529	147,594,946	146,319,744	144,845,630	151,683,386	150,798,580	152,321,182	153,592,340	153,676,794	154,111,183	152,518,803