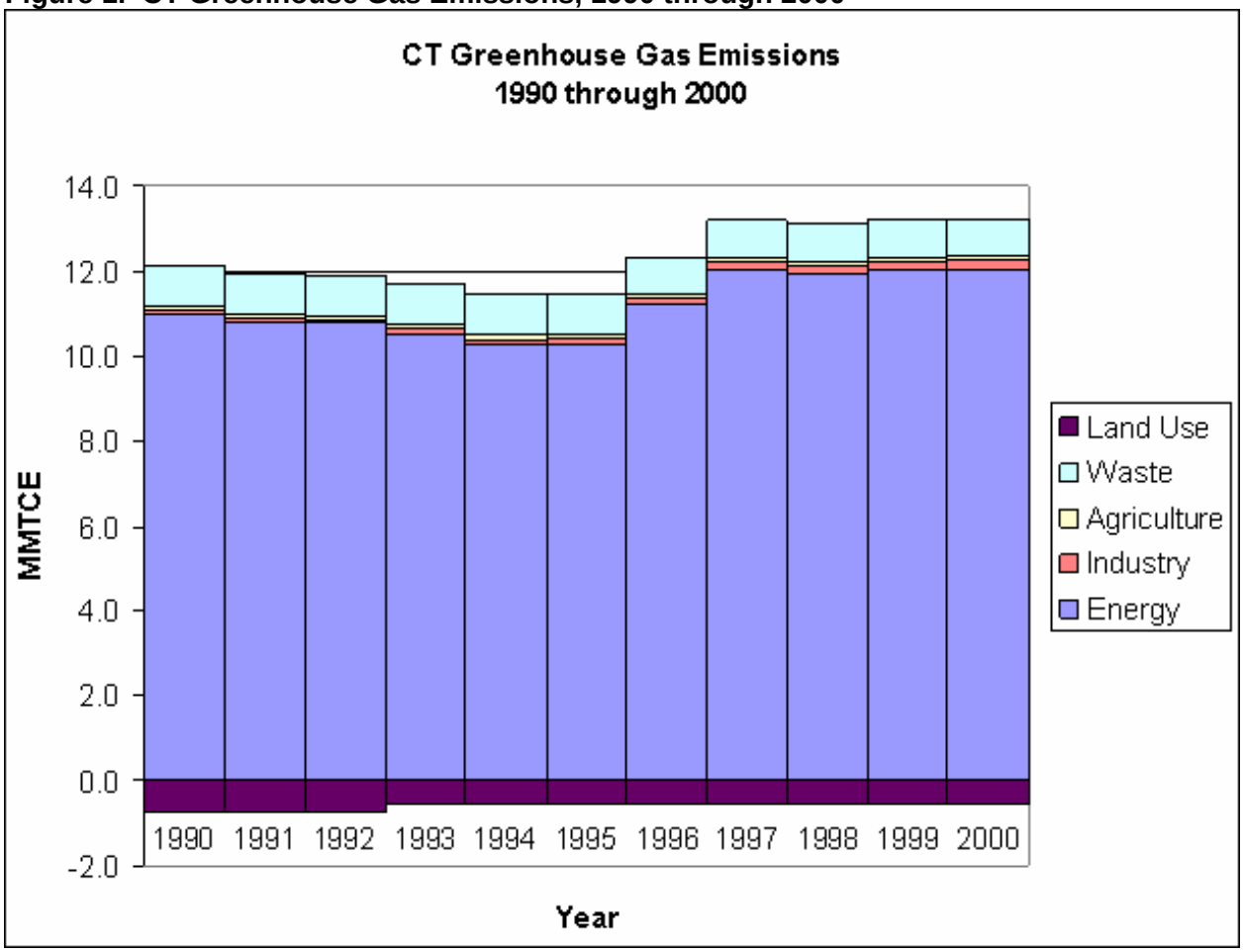
CONNECTICUT GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY

Figure 1. CT Greenhouse Gas Emissions, 1990 through 2000



The *Connecticut Greenhouse Gas Inventory: 1990 to 2000* provides a detailed inventory of sources and sinks of greenhouse gases in Connecticut.[1] In 1990 Connecticut emitted greenhouse gases in the amount of 11.4 million metric tons of carbon equivalent (MMTCE). In 2000, emissions were 12.7 MMTCE, an overall increase of 11 percent over 1990 emissions. Emissions from industrial processes[2] changed the most on a percentage basis over the time period, increasing 167 percent. Emissions from energy also increased (10 percent). Emissions from agriculture and waste both decreased (1 percent and 10 percent, respectively). Forestry and land use change accounted for a small sink, the magnitude of which decreased from -0.7 MMTCE in 1990 to -0.6 MMTCE in 2000.

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[1] Emissions were estimated using the 2003 version of the EPA State Inventory Tool (SIT), developed as part of the U.S. EPA's Emission Inventory Improvement Program (EIIP). The *Connecticut Greenhouse Gas Inventory: 1990-2000* was developed by Northeast States for Coordinated Air Use Management (NESCAUM), Connecticut Department of Environmental Protection, and Connecticut Clean Energy Fund.

[2] Connecticut estimated only high GWP emissions from the industrial processes sector. Connecticut notes that small amounts of CO_2 emissions are generated as well, in limestone and dolomite and soda ash use, but these emissions were not estimated.

Table 1. CT Greenhouse Gas Emissions by Gas and by Sector, 1990 through 2000

MMTCE	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
CO_2	**10.1**	**9.9**	**9.9**	**9.8**	**9.6**	**9.5**	**10.5**	**11.4**	**11.3**	**11.4**	**11.4**
Energy	10.6	10.4	10.4	10.1	9.9	9.8	10.8	11.6	11.5	11.7	11.7
Industrial Processes	*	*	*	*	*	*	*	*	*	*	*
Land Use	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5	-0.6	-0.6
Waste	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
CH_4	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	**0.6**	**0.6**	**0.6**	**0.6**	**0.5**
Energy	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Agriculture	*	*	*	*	*	*	*	*	*	*	*
Land Use	*	*	*	*	*	*	*	*	*	*	*
Waste	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.3	0.3
N_2O	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.4**
Energy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Industrial Processes	*	*	*	*	*	*	*	*	*	*	*
Agriculture	*	*	0.1	0.1	0.1	0.1	*	*	0.1	0.1	0.1
Land Use	*	*	*	*	*	*	*	*	*	*	*
Waste	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
HFCs, PFCs, and SF_6	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Industrial Processes	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Net Emissions	**11.4**	**11.2**	**11.2**	**11.1**	**10.9**	**10.9**	**11.8**	**12.7**	**12.6**	**12.6**	**12.7**

Note: Totals may differ from the sum of the sources due to independent rounding.
An asterisk (*) indicates emissions of the gas from this sector were zero, insignificant, or not reported.
All emissions are reported in million metric tons of carbon equivalent (MMTCE).

Carbon dioxide (CO_2) accounted for the majority of Connecticut's emissions. These emissions were mostly due to the burning of fossil fuels, primarily for transportation; electricity production; and energy consumption in the residential sector. Methane (CH_4) was the second largest contributor to Connecticut's emissions in 1990 and in 2000, equal to 0.8 and 0.5 MMTCE respectively. Methane emissions decreased slightly over the time period; these emissions resulted from the anaerobic decay of solid waste in landfills and, to a lesser extent, emissions from natural gas and oil systems. Nitrous oxide (N_2O) emissions were fairly constant, amounting to 0.4 MMTCE in 1990 and 2000, and were mostly from mobile source combustion and waste combustion. Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) each comprised a small share of the total emissions. These emissions increased from 0.1 to 0.2 MMTCE between 1990 and 2000. This increase in HFC/PFC/SF_6 emissions is largely due to the replacement of ozone-depleting substances (CFCs) with HFCs, which have high global warming potentials.

Per capita emissions were 3.5 MTCE in 1990 and 3.7 MTCE in 2000. In both years, Connecticut's per capita emissions were well below the national average, which was 6.5 MTCE per capita in 1990 and 6.6 MTCE per capita in 2000.