

Greenhouse Gas Emissions in the United States 2007

Greenhouse Gas	Chemical Formula	Global Warming Potential		
		SAR ^a	TAR ^b	AR4 ^c
Carbon Dioxide	CO ₂	1	1	1
Methane	CH ₄	21	23	25
Nitrous Oxide	N ₂ O	310	296	298
Hydrofluorocarbons				
HFC-23 (Trifluoromethane)	CHF ₃	11,700	12,000	14,800
HFC-32 (Difluoromethane)	CH ₂ F ₂	650	550	675
HFC-41 (Monofluoromethane)	CH ₃ F	150	97	—
HFC-125 (Pentafluoroethane)	CHF ₂ CF ₃	2,800	3,400	3,500
HFC-134 (1,1,2,2-Tetrafluoroethane)	CHF ₂ CHF ₂	1,000	1,100	—
HFC-134a (1,1,1,2-Tetrafluoroethane)	CH ₂ FCF ₃	1,300	1,300	1,430
HFC-143 (1,1,2-Trifluoroethane)	CHF ₂ CH ₂ F	300	330	—
HFC-143a (1,1,1-Trifluoroethane)	CF ₃ CH ₃	3,800	4,300	4,470
HFC-152 (1,2-Difluoroethane)	CH ₂ FCH ₂ F	—	43	—
HFC-152a (1,1-Difluoroethane)	CH ₃ CHF ₂	140	120	124
HFC-161 (Ethyl Fluoride)	CH ₃ CH ₂ F	—	12	—
HFC-227ea (Heptafluoropropane)	CF ₃ CHFCF ₃	2,900	3,500	3,220
HFC-236cb (1,1,1,2,2,3-Hexafluoropropane)	CH ₂ FCF ₂ CF ₃	—	1,300	—
HFC-236ea (1,1,1,2,3,3-Hexafluoropropane)	CHF ₂ CHFCF ₃	—	1,200	—
HFC-236fa (1,1,1,3,3,3-Hexafluoropropane)	CF ₃ CH ₂ CF ₃	6,300	9,400	9,810
HFC-245ca (1,1,2,2,3-Pentafluoropropane)	CH ₂ FCF ₂ CHF ₂	560	640	—
HFC-245fa (1,1,1,3,3-Pentafluoropropane)	CHF ₂ CH ₂ CF ₃	—	950	1,030
HFC-365mfc (Pentafluorobutane)	CF ₃ CH ₂ CF ₂ CH ₃	—	890	794
HFC-43-10mee (Decafluoropentane)	CF ₃ CHFCHFCF ₂ CF ₃	1,300	1,500	1,640
Perfluorocarbons				
Perfluoromethane	CF ₄	6,500	5,700	7,390
Perfluoroethane	C ₂ F ₆	9,200	11,900	12,200
Perfluoropropane	C ₃ F ₈	7,000	8,600	8,830
Perfluorobutane (FC 3-1-10)	C ₄ F ₁₀	7,000	8,600	8,860
Perfluorocyclobutane	c-C ₄ F ₈	8,700	10,000	10,300
Perfluoropentane	C ₅ F ₁₂	7,500	8,900	9,160
Perfluorohexane (FC 5-1-14)	C ₆ F ₁₄	7,400	9,000	9,300
Sulfur Hexafluoride	SF ₆	23,900	22,200	22,800

Sources: ^aIntergovernmental Panel on Climate Change, *Climate Change 1995: The Science of Climate Change* (Cambridge, UK: Cambridge University Press, 1996). ^bIntergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001), web site www.ipcc.ch/ipccreports/tar/wg1/index.htm. ^cIntergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis* (Cambridge, UK: Cambridge University Press, 2007), web site www.ipcc.ch/ipccreports/ar4-wg1.htm.