

1.5.4 Average Annual Carbon Dioxide Emissions for Various Functions

	Annual Unit Energy Consumption	Carbon Emissions	
		(MMT CO ₂)	(lb CO ₂)
Stock Refrigerator (1)	1,359 kWh - Electricity	0.8	1,800
Stock Electric Water Heater	2,814 kWh - Electricity	1.7	3,800
Stock Gas Water Heater	24 million Btu - Natural Gas	1.3	2,800
Stock Oil Water Heater	32 million Btu - Fuel Oil	2.3	5,100
Single-Family Home	108 million Btu	11.4	25,200
Mobile Home	70 million Btu	7.4	16,400
Multi-Family Unit in Large Building	54 million Btu	5.7	12,700
Multi-Family Unit in Small Building	85 million Btu	9.0	19,800
School Building	2,125 million Btu	252.2	556,200
Office Building	1,376 million Btu	163.3	360,200
Hospital, In-Patient	60,152 million Btu	7,140.2	15,744,200
Stock Vehicles			
Passenger Car	530 gallons - Gasoline	4.6	10,094
Van, Pickup Truck, or SUV	615 gallons - Gasoline	5.3	11,718
Heavy Truck	1,956 gallons - Diesel Fuel	17.4	38,447
Tractor Trailer Truck	10,749 gallons - Diesel Fuel	95.8	211,312

Note(s): 1) Stock refrigerator consumption is per household refrigerator consumption, not per refrigerator.

Source(s): EIA, Annual Energy Outlook 2012 Early Release, Jan. 2012, Summary Reference Case Tables, Table A2, p. 3-5 for consumption and Table A18, p. 36 for emissions; EIA, Annual Energy Outlook 2010, Apr. 2011, Table G1, p. 235 for gasoline heat rate; EIA, A Look at Residential Energy Consumption in 2005, Jan. 2009, Tables WH6 and WH7 for water heater energy consumption, Table AP2 for refrigerator energy, and Table US9 for household consumption; EIA, 2003 Commercial Buildings Energy Consumption Survey, June 2006, Table C3, p. 247 for commercial buildings; ORNL, Transportation Energy Data Book: Edition 30, 2011, Table 4.1, p. 4-2, Table 4.2, p. 4-3, Table 5.1, p. 5-2 and Table 5.2, p. 5-3 for vehicles; and EIA, Assumptions to the AEO 2011, July 2011, Table 1.2, p. 14 for carbon coefficients.