

6.4.1 Electric Quad Average Carbon Emissions with Average Stock Utility Fuel Mix and Projected New Marginal Capacity Fuel Mix (million metric tons) (1)

	Stock	Projected New Marginal Capacity			
	<u>2002</u>	<u>2005</u>	<u>2010</u>	<u>2020</u>	<u>2025</u>
Petroleum	0.51	0.00	0.00	0.00	0.00
Natural Gas	2.13	1.13	3.02	3.88	2.75
Coal	13.37	12.94	14.38	13.75	16.40
Nuclear	0.00	0.00	0.00	0.00	2.00
Renewable Energy (2)	0.00	0.00	0.00	0.00	0.00
Total	16.02	14.07	17.40	17.63	19.29

Note(s): 1) This table provides estimates of the carbon emissions resulting from consumption of a primary quad at electric utilities. Projected (2005-2025) new marginal capacity emissions will result from natural gas- and coal-fired power plants and renewable energy technologies. Limited nuclear energy will be used to meet near-term demand growth. Electricity imports from utility consumption were ignored since this energy was produced outside of the U.S. "Average" means the weighted average of different fuels (e.g., petroleum is the average of residual and distillate fuel oils). The combustion of fossil fuels produces carbon in the form of carbon dioxide and carbon monoxide; however, carbon monoxide emissions oxidize in a relatively short time to form carbon dioxide. 2) Emissions exclude wood since it is assumed that the carbon released from combustion is reabsorbed in a future carbon cycle.

Source(s): EIA, Annual Energy Outlook 2004, Jan. 2004, Table A2, p. 134-136 and Table A19, p. 158.