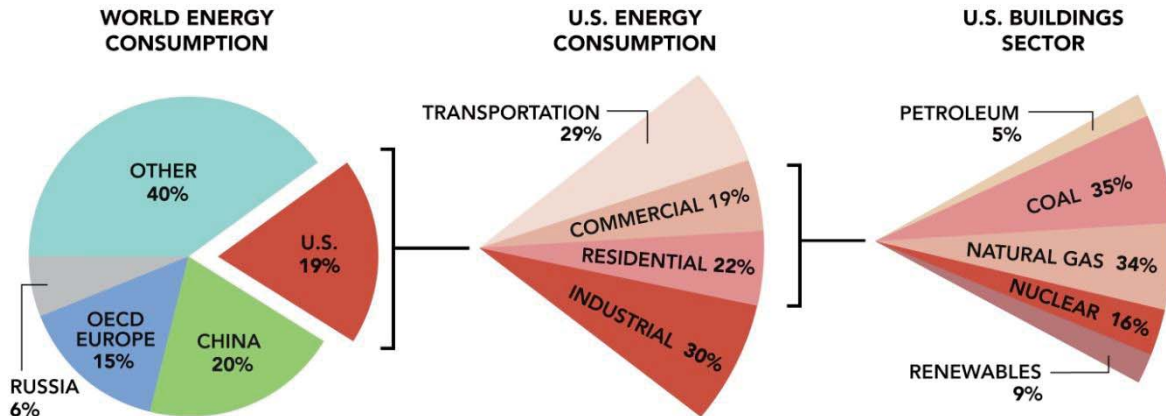
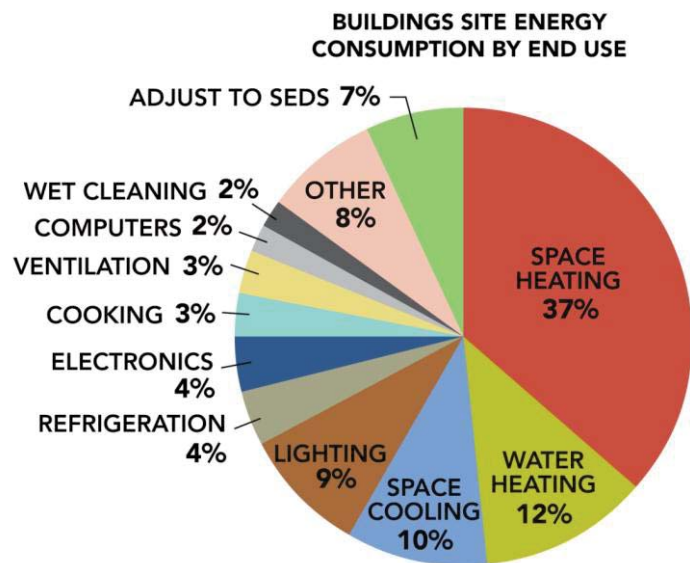


Forty-one percent of U.S. primary energy was consumed by the buildings sector, compared to 30% by the industrial sector and 29% by the transportation sector. Of the 39 quads consumed in the buildings sector, homes accounted for 54% and commercial buildings accounted for 46% (1.1.3). Of the energy sources used by the U.S. buildings sector, 75% came from fossil fuels, 16% from nuclear generation, and 9% from renewables. (1.1.8)



The buildings sector consumed 20 quads of delivered (site) energy in 2010. Delivered energy does not include energy lost during production, transmission, or distribution to customers. The top four end uses—space heating, space cooling, water heating, and lighting—accounted for close to 70% of site energy consumption. Other end uses, such as consumer electronics, kitchen appliances, and ventilation, made up the remainder. (1.1.4)

U.S. building primary energy consumption increased by 48% between 1980 and 2009. The Energy Information Administration (EIA) projects that this growth will stagnate due to the recession until 2016, when steady growth is predicted through 2035. Total primary energy consumption is expected to reach more than 45 quads by 2035, an 17% increase over 2009 levels.



This growth in buildings sector energy consumption is fueled primarily by the growth in population, households, and commercial floorspace, which are expected to increase 27% (2.2.1), 31% (2.1.4), and 28% (3.2.1), respectively, between 2009 and 2035. The use of coal is projected to increase by 11% over the same period, while natural gas consumption will increase by 17%. Use of non-hydroelectric renewable resources, including wind, solar, and biofuels, is expected to increase 109%. (1.1.8)