

Energy Research Worksheet **Answer Key**

Answer the following questions using data from 2011.

1. What is the most common source of energy in the U.S.? Which specific fossil fuel?

Petroleum

2. What percentage of U.S. energy comes from the following fossil fuels?

Coal: 20%

Natural gas: 26%

Petroleum: 36%

3. What percentage of U.S. energy comes from non-renewable resources (fossil fuels + nuclear)?

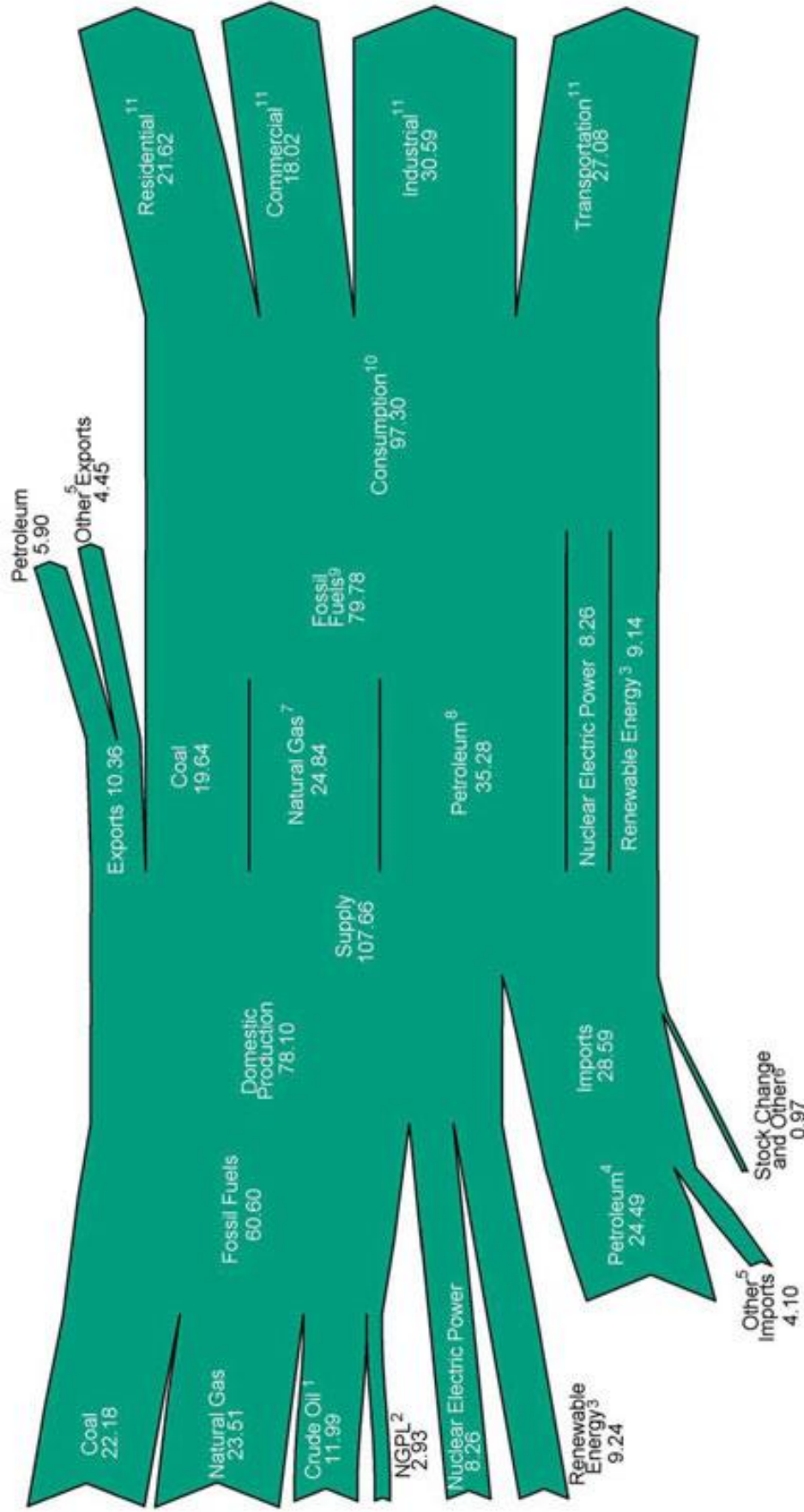
90%

4. What percentage of U.S. energy comes from renewable resources?

9%

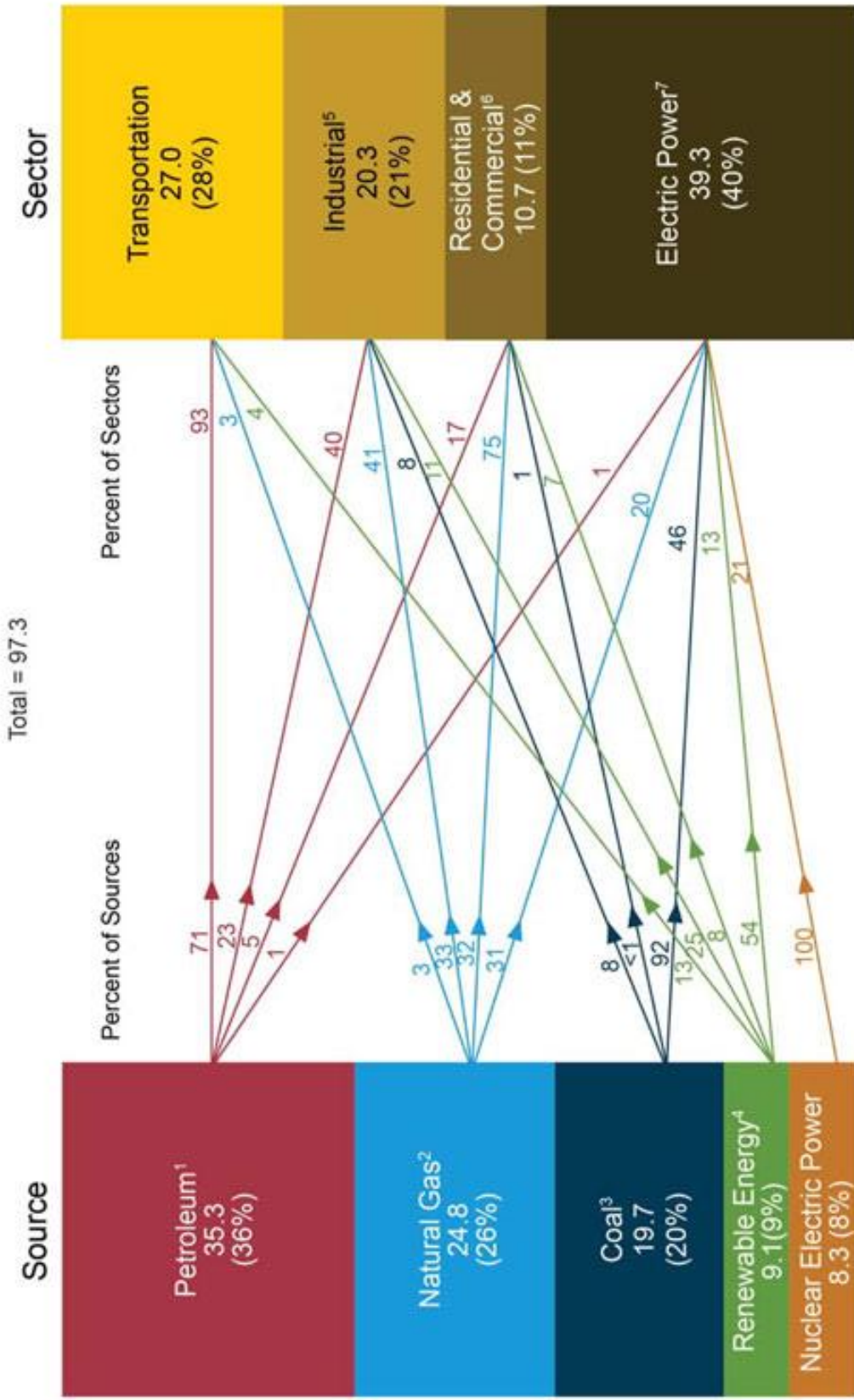
Teacher note: The above answers came from the 2011 Annual Energy Review report from the U.S. Energy Information Administration at: <http://www.eia.gov/totalenergy/data/annual/pdf/aer.pdf>. The pertinent data is provided on charts on page 3 and 37 (Figure 1.0 and Figure 2.0), which give slightly different answers. The chart on page 37 gives the data in percentages (as requested on the worksheet). The two charts are reproduced on the next two pages. At the time of publishing, the latest full report was from 2011; an updated report may be available at a later date.

Figure 1.0 Energy Flow, 2011
(Quadrillion Btu)



¹ Includes lease condensate.
² Natural gas plant liquids.
³ Conventional hydroelectric power, biomass, geothermal, solar/photovoltaic, and wind.
⁴ Crude oil and petroleum products. Includes imports into the Strategic Petroleum Reserve.
⁵ Natural gas, coal, coal coke, biofuels, and electricity.
⁶ Adjustments, losses, and unaccounted for.
⁷ Natural gas only; excludes supplemental gaseous fuels.
⁸ Petroleum products, including natural gas plant liquids, and crude oil burned as fuel.
⁹ Includes 0.01 quadrillion Btu of coal coke net imports.
¹⁰ Includes 0.13 quadrillion Btu of electricity net imports.
¹¹ Total energy consumption, which is the sum of primary energy consumption, electricity retail sales, and electrical system energy losses. Losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note, "Electrical Systems Energy Losses," at end of Section 2.
 Notes: • Data are preliminary. • Values are derived from source data prior to rounding for publication. • Totals may not equal sum of components due to independent rounding.
 Sources: Tables 1.1, 1.2, 1.3, 1.4, and 2.1a.

Figure 2.0 Primary Energy Consumption by Source and Sector, 2011
(Quadrillion Btu)



¹ Does not include biofuels that have been blended with petroleum—biofuels are included in “Renewable Energy.”

² Excludes supplemental gaseous fuels.

³ Includes less than 0.1 quadrillion Btu of coal coke net imports.

⁴ Conventional hydroelectric power, geothermal, solar/photovoltaic, wind, and biomass.

⁵ Includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

⁶ Includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

⁷ Electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes 0.1 quadrillion Btu of electricity net imports not shown under “Source.”

Notes: Primary energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy (for example, coal is used to generate electricity). • Sum of components may not equal total due to independent rounding.

Sources: U.S. Energy Information Administration, *Annual Energy Review 2011*, Tables 1.3, 2.1b-2.1f, 10.3, and 10.4.