

How Do We Power Our World Sustainably?

By: Caden Wilkinson





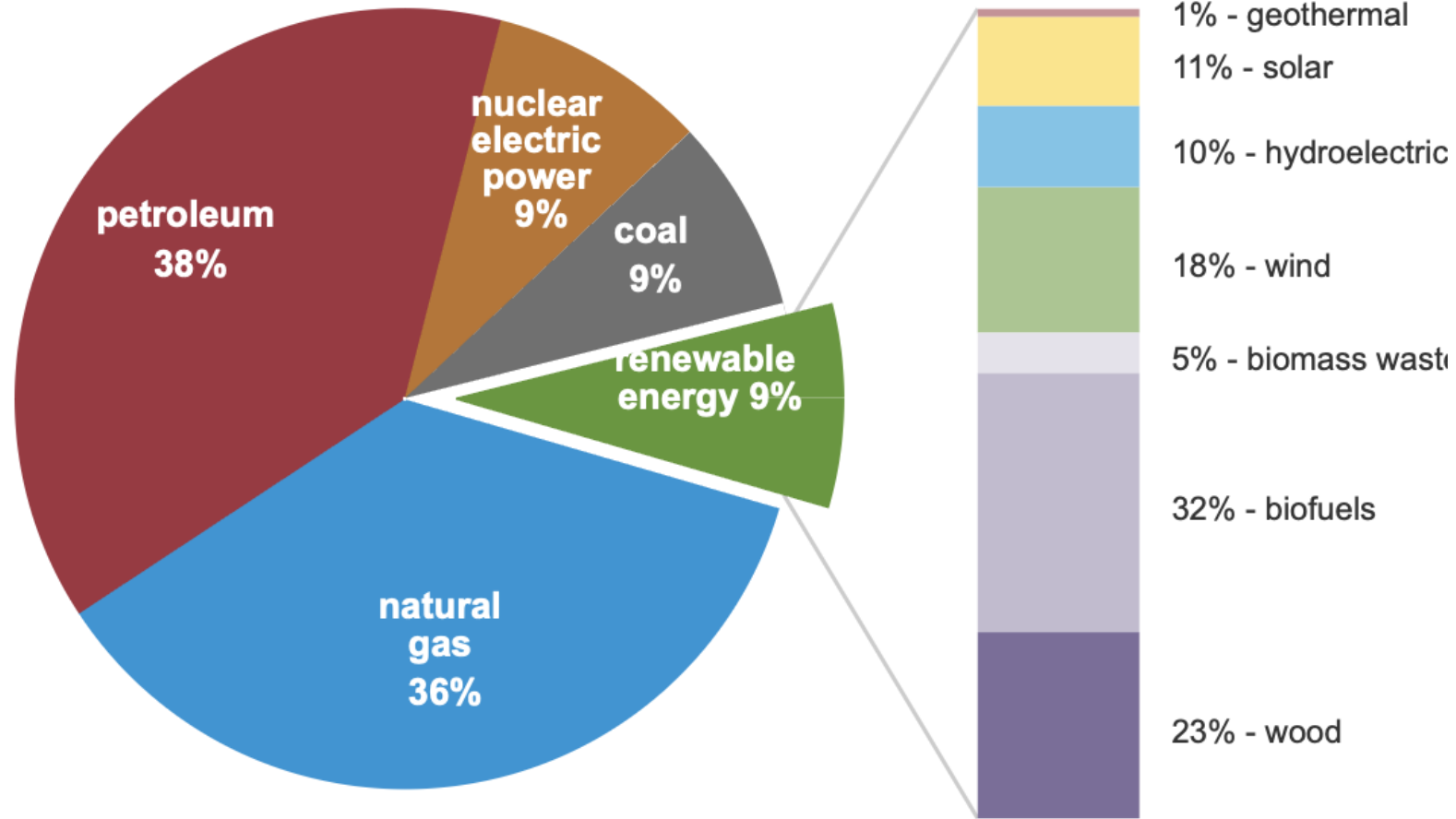
- **Biology major**
- **Physics minor**



U.S. primary energy consumption by energy source

total = 93.59 quadrillion
British thermal units

total = 8.24 quadrillion British th



Fossil fuels

- Global power consumption
- 180,000 TWh

Data source: U.S. Energy Information Administration, *Monthly Energy Review*, Table A.1.1, April 2024, preliminary data



Note: Sum of components may not equal 100% because of independent rounding

Solar panels

- A source of energy that is not depleted when used unlike fossil fuels
- The silicone photovoltaic cells generate electricity due to the movement of electrons
- Harness roughly 15-20% of sunlight



Widespread adoption

1

Invest in the high solar potential of the Sahara desert

2

Increase the efficiency of solar panels to 40%

3

Modernize the power grid and allow renewable energies like wind and solar to realize their potential