



## Clean Energy

### health and environment

Meeting America's energy needs has significant impacts on public health and the environment.

Fossil fuels -- coal, oil, and natural gas -- are America's primary source of energy, accounting for 85 percent of current US fuel use. The burning of these fossil fuels causes cancer and other chronic health problems, contributes to global warming, and degrades valuable land and water resources.

Burning fossil fuels for electricity generation is the single greatest source of air pollution in the United States. This process produces many important pollutants including nitrogen oxides, sulfur oxides, hydrocarbons, dust, soot, smoke, and other suspended matter. These pollutants can cause serious health problems including asthma, irritation of the lungs, bronchitis, pneumonia, decreased resistance to respiratory infections, and early death.

Nitrogen oxides and hydrocarbons combine in the atmosphere to form ground-level ozone, the major constituent of smog. Human exposure to ozone can produce shortness of breath and, over time, permanent lung damage. It can also reduce crop yields.

In addition, nitrogen oxides and sulfur oxides are important constituents of acid rain, which destroys lakes and rivers, diminishes crop yields, and deteriorates buildings.

The burning of fossil fuels for electricity generation is the major source of carbon dioxide emissions, a primary contributor to global warming. Climate scientists predict that if carbon dioxide levels continue to increase, the planet will become warmer in the next century. Increases in temperature will most likely result in a variety of impacts including sea-level rise, extreme weather events, and an increased frequency of droughts in inland agricultural zones.

Along with polluting our air and warming our climate, the exploration, extraction, and use of fossil fuels can cause incredible damage to water and land resources. Oil spills, for example, destroy plant and animal life, and leave waterways and their surrounding shores uninhabitable for long periods of time. In addition, strip mining for coal deposits devastates landscapes by lopping off whole mountaintops and filling-in valleys and streams.

UCS' Clean Energy Program is working to reduce the harmful impacts of energy consumption on public health and the environment. We are fighting to reduce our dependence on dirty fossil fuel sources of energy and increase our use of clean, renewable energy sources by enacting supportive federal and state policies, reducing barriers to the adoption of renewable technologies, and by encouraging all energy purchasers to use renewables. We are also working to ensure that we use energy more efficiently.