



CHILDREN'S
ENVIRONMENTAL
HEALTH
NETWORK

UNDERSTANDING ENERGY SOURCES

RENEWABLE, NONRENEWABLE, CLEAN

Energy is the ability to do work

Energy is used to light our homes, heat our water, and fuel our cars. There are many different *forms* of energy, including electrical, chemical, heat, and light. These can be grouped into either: 1. *Potential or stored energy* or 2. *Kinetic or working energy*.

Energy can be converted from one source and form to another

For example, the potential chemical energy in coal and natural gas and the kinetic energy of water flowing in rivers can be converted to electrical energy, which can then be converted to light and heat.

The U.S. uses mostly nonrenewable energy sources

Non-renewable energy comes from sources that will run out or not be restored for a long time. Most non-renewable energy sources are fossil fuels: coal, oil, and natural gas. The life cycle of fossil fuel use pollutes the environment and produces carbon dioxide (CO₂), a major greenhouse gas that contributes to climate change.

Renewable energy comes from energy sources that can be restored

Examples of renewable energy sources include sunlight, wind, and hydropower (flowing water). Nuclear energy and biomass (plant material) and waste are considered by some to be renewable energy sources as well, but these sources create health hazards.

Not all renewable energy is clean

Clean energy is energy that comes from renewable sources that produce no direct pollution and greenhouse gases.

Burning waste and biomass releases toxic air pollution which harms nearby communities (usually under-resourced and communities of color). It also produces as much or even more CO₂ per unit of energy as fossil fuels.

Dams constructed for hydropower have significantly changed the surrounding environment, disrupting the health and livelihoods of Indigenous populations. Nuclear energy production creates radioactive waste that can remain harmful to human health for thousands of years.

Uranium (a nonrenewable resource) is needed for generation of nuclear energy, and uranium mining contaminates drinking water with toxic and radioactive waste for many Indigenous populations.

Solar and wind energy are clean and renewable options.

Learn more: www.cehn.org/climate

Phone: 202-543-4033