

Natural Resources Line of Inquiry

Lesson 2

Environmental and Health Challenges of Energy Use - CCRS Level D

The environmental impacts of energy use on humans and the planet can happen anywhere during the life cycle of the energy source. The impacts begin with the extraction of the resource. They continue with the processing, purification, or manufacture of the source, its transportation to the place of energy generation, and ends with the disposal of waste generated during use. The extraction of fossil fuels can be used as a case study because its use significantly impacts the environment. As we mine deeper into mountains, farther out at sea, or farther into pristine habitats, we risk damaging fragile environments, and the results of accidents or natural disasters during extraction processes can be devastating. Fossil fuels are often located far from where they are utilized, so they need to be transported by pipeline, tankers, rail, or trucks. These all present the potential for accidents, leakage, and spills. When transported by rail or truck, energy must be expended, and pollutants are generated. Processing petroleum, gas, and coal generates various emissions and wastes and utilizes water resources. Energy production at power plants results in air, water, and, often, waste emissions.

Adapted from page 285 of:

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