

Electricity Generation and Pollution

The most polluting industry

- ✓ The generation of electric power **produces more pollution** than any other single industry in the United States.
- ✓ The energy sources most commonly used for electricity production – fossil fuels such as coal, oil and natural gas – are known as **non-renewable resources**. They take millions of years to be formed in the crust of the earth by natural processes. Once burned to produce electricity, they are gone forever.
- ✓ Burning fossil fuels such as coal or oil **creates unwelcome by-products** that pollute when released into our environment, changing the planet's climate and harming ecosystems.



According to 2000 figures, the U.S. electricity production industry is responsible for:

- ✓ **62.6% of U.S. sulfur dioxide emissions** that contribute to acid rain.
- ✓ **21.1% of U.S. nitrous oxides emissions** that contribute to urban smog.
- ✓ **40% of U.S. carbon emissions** that contribute to global climate change.
- ✓ Among the other major environmental issues linked to electricity are **water impacts, generation of wastes and the disruption of land uses**.

By-products of electricity production

- ✓ **Nitrous oxides emissions** contribute to ground-level ozone, particulate matter pollution, haze pollution in national parks and wilderness areas, brown clouds in major western cities, acid deposition in sensitive ecosystems across the country, and the eutrophication of coastal waters.
- ✓ **Elevated ozone levels** persisting throughout the country have also led to the adverse health effects of smog and millions of dollars in agricultural damage.
- ✓ A compelling body of scientific evidence links **fine particle concentrations** with illness and thousands of premature deaths each year. Children and the elderly are particularly at risk.

What about nuclear power?

- ✓ Like coal, nuclear power causes some of the most serious environmental impacts, albeit indirectly. While nuclear power plants do not release toxic chemicals like traditional power generation plants, **nuclear fuel systems create hazards that may threaten people and the environment now and for generations to come, as well as pose risks of catastrophic accident**.
- ✓ Mining, processing and transporting nuclear fuel produce **significant pollution**, including air pollution.
- ✓ After decades of nuclear power plant operation, our nation has not yet decided how to solve the problem of **safely storing hazardous nuclear wastes for centuries to come**.

Reducing our consumption of electricity has an immediate effect on the air quality by reducing emissions. This will yield significant societal benefits to public health. For more information go to www.environmentaldefense.org/go/globalwarming