

The Problem with Electric Power

Most of us do not think twice when we flip on the light switch as to the hows and whys of electricity. What matters at that moment is that the light goes on.

From an environmental perspective, however, the details of electricity generation are very important. In fact, electric power plants are America's single largest source of industrial air pollution. For this reason, power plants lie at the heart of some of the nation's most challenging environmental problems.

Air pollution from power plants threatens human health and pollutes our nation's ecosystems. Their emissions of carbon dioxide, mercury, fine soot, nitrogen oxides, and sulfur dioxides contribute to the formation of ground-level ozone, fine particulates, acid deposition, and mercury contamination. In turn, these pollutants cause or contribute to birth defects, premature death (including Sudden Infant Death Syndrome), lung disease (like asthma, emphysema, and chronic cough), global warming, reduced visibility, and acid rain.

Much of the health and environmental damage that power plants cause is completely unnecessary. The nation's older coal and oil fueled plants do not meet the same rigorous pollution standards of modern plants. A small percentage of these plants is responsible for millions of tons of air pollution, choking our cities, threatening our children, polluting our lakes and streams, and killing our national forests. Over half of the sulfur dioxide and nitrogen oxide emissions from the utility industry come from about ten percent of all fossil-fueled plants.¹

A small percentage of the nation's power plants is responsible for millions of tons of air pollution, choking our cities, threatening our children, polluting our lakes and streams, and killing our national forests.

Of the approximately 1,000 power plants operating today, 500 were built before modern pollution control regulations went into effect in the 1970's. While some air pollution controls are required of older power plants, in many cases the law still allows older plants to emit harmful pollutants at four to ten times the rate of new plants built today. Imagine if certain models of the nation's cars were exempt from modern tailpipe standards, or most of the nation's fresh produce sold today only

If we do not require older power plants to meet the same environmental standards that newly built facilities have to meet, these plants will enjoy an unfair and environmentally unsound subsidy against the new, cleaner competition.

had to meet the health and pesticide laws of the 1950's.

Requiring the nation's older power plants to meet the same air pollution standards that apply to coal plants built today would

reduce utility-generated air pollution by about 75 percent. What would the nation get in return? Healthier children and adults, longer lives, healthier forests and lakes, reduced threat of climate change, and clearer vistas.

Using current technology, the utility industry can meet tighter air pollution standards at reasonable costs. An array of options exists—from state-of-the-art chemical injection processes to replacement of dirty coal with natural gas. Power plants licensed today meet and, in many cases, beat the existing air pollution standards. They are feasible, cost-effective, and can be achieved quickly.

The urgency of cleaning up the nation's older power plants has never been greater. Scientific studies in the last decade have established that air emissions from power plants are more injurious to human health and the environment than was even understood in the 1980's. In

addition, the utility industry is losing its monopoly, so every power plant will have to compete against one another. If we do not require older power plants to meet the same environmental standards that newly built facilities have to meet, these plants will enjoy an unfair and environmentally unsound subsidy against the new, cleaner competition. Some studies have suggested this subsidy may result in more power plant pollution than we have today.ⁱⁱ

If we are to make significant progress as a nation in cleaning up the air, we need to update the pollution requirements for *all* electric power plants. Plants should comply with the same, strict emissions standards, regardless of their age or fuel type. This policy will not only clean up emissions from conventional fossil-fueled power plants; it will also advance the availability of sustainable energy technologies such as wind power, fuel cells, and photovoltaics, by forcing fossil-fueled plants to bear the full cost of polluting the air.

ⁱ U.S. Environmental Protection Agency Acid Rain ETS/CEM Database, 1996.

ⁱⁱ Henry Lee and Nedeem Darani, *Electricity Restructuring and the Environment* (Harvard University, Harvard Electricity Policy Group, December 1995). Center for Clean Air Policy, *Air Quality and Electricity Restructuring: A Framework for Aligning Economic and Environmental Interests Under Electricity Restructuring*, March 1997. Federal Energy Regulatory Commission, *Final Environmental Impact Statement*, April 1996, IV-10.