

SESSION VI: Economics of Acid Rain

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I want to give you two or three minutes of introduction. I will lead off with a question or two.

How many of you know that, after the implementation of NO_x controls by 2004 these emissions from the electric utility sector will be less than 20 percent of total U.S. man-made NO_x emissions?

How many of you know that, when Title IV is completely done around 2010, that actual U.S. emissions of SO₂ will be at their lowest mark in a century, largely due to the reductions from utilities, except for two years during the Great Depression?

I will give you a little information from DOE and EPA. You see in Figure 1 that over the last 30 years, roughly, coal use and coal electricity are approaching a tripling. You also see that the emission rate – pounds per unit of energy – for NO_x is down 50 percent, SO₂ is down 70 percent, PM₁₀ is down 94 percent.

Absolute tons of emissions from electricity are on their way to about 50% reductions (Figure 2). This is all the more significant, of course, in the face of this tremendous increase in electricity.

Why is this? Because we have substantial regulatory requirements on electric power production, not only currently but in the future. We have national ambient air quality standards for ozone, SO₂, nitrogen dioxide and PM, which led to

reductions in emissions even before the acid rain program. We have the two phases of the acid rain program, reducing NO_x and SO₂. Don't forget the NO_x SIP Call in 2004 and related ozone reductions in the Northeast Ozone Transport Region. Mercury reductions are required at the end of 2007. We have fine particle and 8-hour ozone regulations toward the end of this decade and regional haze, essentially taking emissions down to zero over 60 years.

People tend to ignore all these reductions that have taken place or are in the pipeline. I will conclude by noting that we have been having discussions about what we call a comprehensive approach or integrated strategy to take these reductions a step further. We have been talking, for several years now, with the administration, the environmental groups and Congress about an approach whereby we could eliminate these many steps and craft a more streamlined approach which would allow us to eliminate duplication, minimize confusion and reduce uncertainty. We call this the comprehensive approach or integrated strategy. Congress is very interested in this. The President is very interested in this, and so are the utilities.

With that, I would like to introduce our first speaker, who is Jeremy Platt, the Electric Power Research Institute.

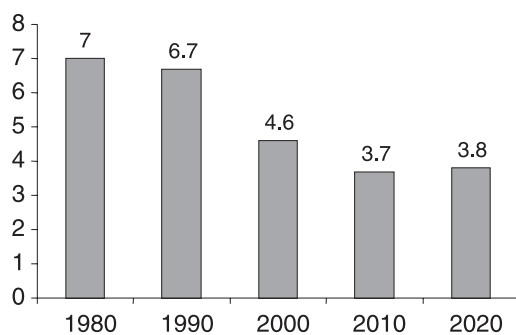


Figure 1. Nitrogen oxides emissions - fossil fuel electric generation (millions of tons). Emissions in 2010 and beyond will be substantially lower than shown here, due to new EPA regulations on particulate matter, ozone, and regional haze.

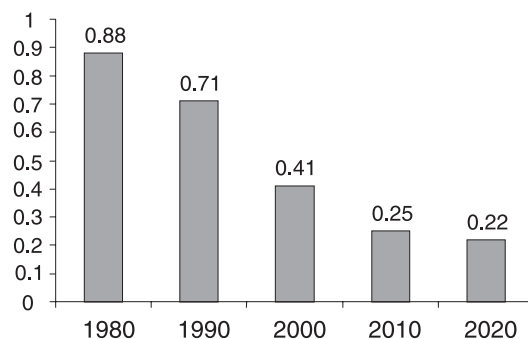


Figure 2. Nitrogen oxides emissions rate - fossil fuel electric generation (pounds per million BTU). Emissions in 2010 and beyond will be substantially lower than shown here due to new EPA regulations on particulate matter, ozone, and regional haze.

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