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**Subject:** Re: Multi-P Committee - rate impacts of power plant cleanup regulations

The effort to obstruct cleanup of Delaware's power plants seems to rely to a considerable extent on claims or implications of massive rate impacts.

(Some numbers floated by DNREC near the beginning of this process seemed very high to me. These apparently allocated all the costs directly to Delaware ratepayers. However, this is not reality as I understand it.)

The issue has been looked at many times and in considerable detail.

First, I would draw your attention to the "**Testimony of Eliot Spitzer, New York Attorney General before the United States Senate Committee on Environment and Public Works and Committee on the Judiciary July 16, 2002 Washington, D.C.**" ([http://www.oag.state.ny.us/environment/statement\\_clean\\_air\\_act.pdf](http://www.oag.state.ny.us/environment/statement_clean_air_act.pdf)).

This is an excellent summary of the Bush administration's attacks on NSR and so on.

Spitzer noted, at page 24, that: "More aggressive SO<sub>2</sub> and NO<sub>x</sub> cuts are clearly technically feasible even with existing technology. Nor is it a question of rates that consumers must pay for power. The Department of Energy itself determined that the country could cut NO<sub>x</sub> and SO<sub>2</sub> by 60-80% by 2010 with virtually no rate impact. See Energy Information Administration, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide* (December 2000)."

The referenced EIA study is available at <http://www.eia.doe.gov/oiaf/servicerpt/powerplants/chapter3.html>.

Note that this study dates from 2000 and does not project the large fuel cost increases and (ostensibly) associated rate increases now being seen.

However, it does compare a base case with NO<sub>x</sub> and SO<sub>2</sub> and CO<sub>2</sub> cap scenarios, and the

comparisons seem basically valid.

With regard to capping of NO<sub>x</sub> emissions:

"The increased costs for power plant operators, if incurred in generation markets with cost-of-service regulation, would be passed on directly to consumers in electricity prices. **In competitively priced markets, however, the higher costs would be passed on to consumers only if they increased the operating costs of the generating plants that set the market price for power.** For example, if SCR equipment were added to reduce NO<sub>x</sub> emissions from a coal plant that did not set the market price for power, the costs of installing and operating the equipment would not be passed on to consumers as long as the plant's operating costs remained below the market price. In effect, the net profit from the plant would be reduced. Conversely, a plant with relatively low NO<sub>x</sub> emissions that does not set the market price could see higher profits in these cases."

"In the NO<sub>x</sub> cap cases, a portion of the projected increase in electricity generation costs would fall on plants not setting the market price for power. In the NO<sub>x</sub> 2005 case, the difference between the costs incurred and the increased revenue to power plant operators is projected to average \$1.0 billion per year between 2005 and 2020 (Figure 11). The overall impact on electricity prices, however, is projected to be small. The price of electricity in 2010 is projected to be 1 percent higher than in the reference case."

With regard to SO<sub>2</sub>:

"In the SO<sub>2</sub> cap cases, as in the NO<sub>x</sub> cap cases, the projected total investment in new emission control equipment would not be large relative to the \$363 billion net plant investment for investor-owned utilities in 1998. Higher projected SO<sub>2</sub> allowance prices and greater dependence on natural gas would lead to higher generation costs and higher electricity prices. However, also as in the NO<sub>x</sub> cap cases, **a portion of the projected increase in generation costs would fall on plants not setting the market price for electricity (and a large part of the costs are fixed capital costs that do not affect operating costs), and therefore the full costs of investments in emission control equipment would not be passed on to consumers in electricity prices.** The price of electricity in the SO<sub>2</sub> 2005 case is projected to be roughly 1 percent above the reference case projection in 2010 and between 1 and 2 percent higher in 2020. Again, as in the NO<sub>x</sub> cap cases, plants with low or no SO<sub>2</sub> emissions would see increased profits in these cases."

The overall conclusion of this report is that while CO<sub>2</sub> caps have a substantial rate impact, NO<sub>x</sub> and SO<sub>2</sub> caps do not. I believe these conclusions apply to likely rate impacts of requiring acid gas scrubbers and catalytic NO<sub>x</sub> abatement on the IRPP and EMPP.

Also, note these factoids for the PJM "system": (<http://www.pjm.com/about/glance.html>):

Generating capacity - 163,806 megawatts

Generating sources - 1,082, with diverse fuel types

"...the largest competitive wholesale electricity market in the world"

Even conceding some transmission congestion issues, noticeable rate impacts seem unlikely if in fact the wholesale market is competitive as claimed.

Delaware can proceed with an aggressive pollution reduction rulemaking without concern about rate impacts.

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