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Commission Watch

The AGs' Global Warming Suits:

Regulation by Litigation

A recent lawsuit filed by eight state attorneys general will take the industry to the place where bad policy meets with bad economics.

STATE OF NEW YORK
DEPT. OF PUBLIC SERVICE
DATE 4/3/09
CASE NO. 06-T-0650
353

October 2004

By *Jonathan A. Lesser*

We all want cleaner air and less pollution. Growing up in an era of acid rain, smog alerts, and, more recently, the threat of global warming and environmental apocalypse, the urge to "do something" today is natural. And because regulations to address air pollution under the Clean Air Act have evolved through a slow, complex, and convoluted process for more than 50 years, that urge has naturally turned to litigation. But regulation by litigation is a terribly expensive and ineffective policy tool. For electric utilities, which remain at the center of many environmental policy battles, litigation is a "lose-lose" proposition that can mean

higher costs and less financial security far into the future.

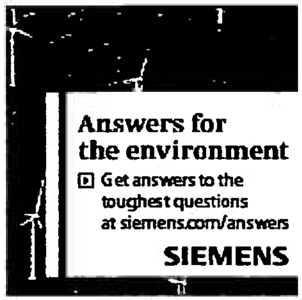
Nevertheless, electric utilities remain a tempting target. So perhaps it is not surprising that last July a coalition of eight state attorneys general, led by New York's Elliot Spitzer, filed a class-action lawsuit against five of the largest electric utilities in the nation.1 The suit alleges that the five utilities-American Electric Power, Cinergy, Southern Co., Tennessee Valley Authority, and Xcel Energy-which operate numerous coal-fired generating plants, are harming the states' residents because of the plants' carbon dioxide (CO2) emissions. The suit deems these plants' emissions, said to account for 10 percent of all carbon dioxide emissions in the United States, a "public nuisance" because of carbon dioxide's contribution to global climate change. It demands that these utilities be ordered to reduce their CO2 emissions by an unspecified amount, although it suggests that a 3 percent annual reduction would "achieve a fair share of the carbon dioxide emission reductions necessary to significantly slow the rate and magnitude of warming."

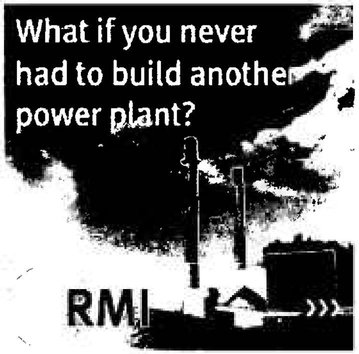
Moreover, the suit alleges that these five utilities all have "practical, feasible, and economically viable options for reducing CO2 emissions without *significantly* increasing the cost of electricity to their customers," including "changing fuels, improving efficiency, increasing generation from zero- or low-carbon energy sources such as wind, solar, and gasified coal with emissions capture, co-firing wood or other biomass in coal plants, employing demand-side management techniques, altering the dispatch order of their plants, and other measures." This latest lawsuit follows on the heels of a December 2002 lawsuit filed by Spitzer, which sought to force many of these same Midwest utilities to install state-of-the-art pollution-control equipment under the Clean Air Act's New Source Review requirements.

End-Run?

CO2 emissions from power plants are not regulated under the Clean Air Act or any other legislation. Thus, the lawsuit contains no allegations that these five utilities have operated their power plants in any way that is unlawful. Indeed, the lawsuit might be seen as a regulatory end-run to achieve the ends sought in the states' previous December 2002 lawsuit, which targeted pollutants that are regulated under the Clean Air Act. Otherwise, if the goal was simply to reduce CO2 emissions, the states could have passed legislation to reduce emissions within their own borders.

Regardless of the true motives behind this latest legal salvo, it has critical financial implications for all utilities and their customers, and that's true whether





you believe global climate change is the most pressing environmental problem we face or merely is so much hot air. The reason is that litigation creates additional uncertainty and uncertainty creates additional financial risk-ultimately leading to higher costs for all utilities and their customers.

A long history of environmental battles has proven that litigation almost certainly will lead to unnecessarily costly and ineffective policies, no matter how noble the underlying cause. In that sense, therefore, regulation by litigation is imprudent: There are better ways to achieve environmental goals-in this case reducing CO2 emissions-than by ill-conceived lawsuits.

CO2 Litigation: The Worst Possible Approach?

Although the magnitude, timing, and ultimate consequences of global climate change remain uncertain, an economic insurance argument can be made for undertaking some policies that will begin reducing CO2 emissions today. What is critical is the quantity of insurance that should be purchased (i.e., how much of a reduction in CO2 to target) and the lowest-cost mechanisms of achieving such a target.

With that economic framework in mind, we can ask whether regulating CO2 emissions by litigation is a prudent regulatory strategy, in the same way that utilities' investment choices undergo prudence reviews by their state regulators. In other words, is this lawsuit, and litigation generally, a prudent approach to reduce CO2 (or other air pollutant) emissions? Alas, the answer is "no." This type of litigation is ineffective and almost surely the most expensive way to reduce pollution.

The 1990 Clean Air Act amendments recognized that market forces could be harnessed to solve non-market problems and introduced a system of tradable permits for emissions of two major (criteria) air pollutants: sulfur dioxide (implicated in acid-rain deposition) and oxides of nitrogen (a contributor to smog). Under this "cap-and- trade" system the total quantity of emissions is fixed by the government. Polluters can choose to reduce their own emissions or purchase permits from others who can reduce emissions at a lower cost. This system has reduced emissions of these two pollutants at far lower costs than could have been achieved with command-and-control regulation, including that mandated under New Source Review. The reason is simple: Markets provide incentives to find the lowest cost sources of pollution reductions, whereas command-and-control regulations do not.

Especially in the case of global warming, where the relevant market is "global," a system of international tradable permits in CO2 emissions would make far more economic sense than specific reduction mandates of the sort demanded in the states' lawsuit. Even if one wished to reduce CO2 emissions nationally, regardless of international actions, a system of tradable emissions permits would be ideal, because CO2 emissions do not have local environmental impacts. Contrast this approach for CO2 with the controversy over recent proposals to reduce mercury emissions using a cap-and-trade approach. In that case, while a cap-and-trade system would reduce overall mercury emissions at the lowest cost, one could argue that localized environmental impacts also needed to be addressed.

To evaluate the prudence of this lawsuit, we can ask a series of three questions.

- Would a three percent annual reduction in CO2 emissions by each of these utilities measurably reduce the impacts of global climate change?
- How economically viable are the emissions reduction options cited in the suit? Are there lower-cost approaches that could achieve the same greenhouse gas reductions?
- How would the benefits and costs of alternative policies be distributed in comparison to the lawsuit's remedy? That is an important policy question analogous to the "just-and-reasonable" aspects of utility rate-making efforts, since economically efficient policies are sometimes rejected because they impose disproportionate costs on certain groups in a way that society perceives to be unfair.

Tallying the Benefits

Would the emissions reductions contemplated in the lawsuit have a measurable impact on global climate change? Probably not. Together these utilities account for about 2 percent of current global CO2 emissions. A 3-percent reduction in their emissions each year would reduce worldwide CO2 emissions by less than one-tenth of 1 percent.2 Since CO2 emissions in developing countries such as China are increasing far more rapidly than in the United States and other developed nations, it is unlikely that these five utilities' contribution to total emissions reductions would ever increase. Moreover, even implementing the entire Kyoto Protocol would have an inconsequential impact on global climate, leading to a temperature increase in 2100 that might only be 0.15° C less than under "business-as-usual, or less than a 10 percent reduction in the total projected temperature change."

Even if one ordered the utilities to eliminate their CO2 emissions entirely, which would be neither practical, feasible, nor economically viable, the effect on global climate--and the benefits derived by the plaintiffs from that reduction-would be imperceptible. The only likely benefits to the plaintiffs would be additional reductions in "upwind" emissions of the pollutants covered under the Clean Air Act that have adversely affected air quality in the eastern United States.

Thus, the answer to the first question of the prudence determination is that the benefits of the lawsuit are likely to be negligible, at least from the standpoint of global climate change and CO2 emissions reductions. This in itself would suggest the lawsuit would not pass a prudence review.

Tallying the Costs

Consider the second and third questions. Here, the answers are clear: Market-based solutions would be more efficient and equitable at reducing emissions levels.

But suppose there were no market-based solutions in place and that only command-and-control regulations are available to reduce CO2 emissions. How "practical, feasible, and economically viable" are the options cited in the lawsuit for reducing CO2 emissions? Would they really do so without significantly increasing the cost of electricity to those five utilities' customers? The main targets for CO2 emissions reductions would be the utilities' coal plants. Shutting down some or all of those coal plants, many of which are older, fully depreciated plants that provide low-cost electricity, would require replacing their output with some combination of new generation technologies and energy efficiency investments.

Replacing fully depreciated coal plants with new generating units, even ones that are economically viable, would still mean higher electric costs for those utilities' customers. Moreover, most of the alternatives cited in the lawsuit either cost too much or cannot be supplied in sufficient quantities to provide a viable and economic alternative.

Today, coal is the nation's largest single fuel source for electric generation; While coal prices have increased, they have not suffered from the trebling in price that has affected natural gas, the least carbon-intensive fossil fuel. Coal-gasification-which breaks down coal into its basic chemical constituents- is a promising technology that offers greater efficiency and easier "carbon scrubbing" than conventional coal plants. However, the technology is still experimental and the construction of large-scale coal-gasification plants is just now starting.

The Midwest provides an ideal environment for wind power, which in large-scale developments is cost-competitive in today's electricity markets. But wind-generated electricity suffers from an inherent limitation: If there is no wind, there is no electricity. This does not preclude development of more large-scale wind farms in the Midwest, but it does mean that wind power will always be a limited component of any future generation mix because it needs to be backed up by other generation that can be called on whenever needed. With memories of last summer's blackout still fresh in the minds of many, ensuring reliable supplies of electricity ought to be of particular concern to the plaintiffs.

Improving energy efficiency is also a laudable goal, but it too has its limits. In the last 30 years, the United States has become far more energy efficient, both through investments in energy conservation measures (such as better-insulated homes) and improved technology (such as better motors). More can be done, but it is not clear that the most beneficial investments in greater energy efficiency are in the electric industry. Moreover, energy efficiency advocates have been known to oversell benefits (*e.g.*, "negative cost" technologies) and dismiss some costs (e.g., uncertainty over the how well new technologies perform).

As for biomass, it is hard to imagine that there are enough trees that could be harvested in the Midwest to replace even one large coal plant, let alone many of them. Corn-based ethanol already requires large subsidies to be competitive and there would need to be a significant increase in production to replace coal-plant generation. And, despite continuing technological progress, solar energy continues to be far too expensive to be considered viable.

As for the "justness and reasonableness" of the distribution of benefits and costs, the plaintiffs' lawsuit would clearly not benefit the five utilities' customers, who would be forced to pay higher prices for electricity, through no fault of their own. The lawsuit is asking a select group to bear disproportionate costs to address what may or may not be a global environmental problem, even though their utilities made investments that were prudent.

Consider, too, what would have happened had the utilities not invested in coal plants, but exclusively in more expensive, less CO2 emissions-intensive resources: Their own state regulators would have found those utilities imprudent and imposed financial penalties on investors. If the lawsuit is successful, those utilities' customers and investors will also face financial penalties. Such a "heads I win, tails you lose" approach to regulation is untenable, because it increases financial markets' skepticism and uncertainty about generation investments, inevitably raising the cost of capital.

A Better Approach

In answering the second prudence question, the state plaintiffs in this case are oddly silent about one proven technology that is efficient, provides round-the-clock electricity, and produces no carbon dioxide emissions: nuclear power. This is surprising, given those states' own reliance on nuclear power. New nuclear technologies, based on standardized, modular designs, will be able to provide lower-cost electricity than existing nuclear plants. Increased reliance on nuclear power would reduce the same Clean Air Act pollutants that these states' previous lawsuit attacked and reduce exposure to volatile oil and gas markets, which have buffeted the nation's economy. Therefore, not only would greater reliance on nuclear power reduce CO2 emissions, it also would reduce the demand and price of existing emissions allowances for sulfur dioxide and oxides of nitrogen.

Ultimately, it is not clear that the most efficient way to reduce greenhouse gas emissions lies with the electric power industry whatsoever. A number of economists have proposed direct carbon taxes that could be recycled in other sectors of the economy through lower marginal tax rates. Coupled with a system of tradable permits for carbon emissions, such a carbon tax would allow businesses and utilities to decide for themselves the most efficient strategies to reduce greenhouse gas emissions.

Thus, from an economic and regulatory standpoint, it's difficult to see how this lawsuit, or litigation in general, can be viewed as a prudent approach to environmental mitigation. This lawsuit is unlikely to provide any appreciable benefits to the plaintiffs. If successful, the lawsuit would reduce greenhouse gas emissions at an unnecessarily high cost and force a small group of individuals and businesses to bear disproportionate costs. Furthermore, if the lawsuit were successful, it would have a chilling effect on the financial community, exacerbating the financial uncertainty that has been felt by regulated and non-regulated generators alike, and raising the cost of capital for both.

Ultimately, there are far less costly ways to reduce both greenhouse gas emissions and criteria air pollutants. Indeed, one of the beauties of market-based mechanisms is the degree of creativity they engender. Those mechanisms have been shown to work, and work well, in addressing environmental problems-far better than politically charged lawsuits ever will. If regulated utilities must continue to operate under the standards embedded within prudence, it seems only reasonable to ask the government that regulates them to do the same.

Jonathan Lesser, Ph.D., is a principal with the firm of Bates White LLC in Washington, D.C. He can be reached at 202-747-5972 or at jonathan. lesser@bateswhite.com.

Endnotes

1. *State of Connecticut, et al., v. American Electric Power Co. Inc., et al., United States District Court, Southern New York District, July 21, 2004.*

2. While the lawsuit implies that a 3 percent reduction represents their "fair share" of emissions reductions, nowhere does the lawsuit suggest that the utilities would be required to reduce their emissions only as part of a broader national or international emissions reduction policy.

3. This also assumes that forecasts of the overall temperature change are accurate. See, Bjorn Lomborg, *The Skeptical Environmentalist*, 2001, p. 302, and references cited therein.

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