

Bill means worse electric shortages

by Marsha Freeman

Whether or not utilities are required to meet the amendments to the Clean Air Act, the United States is developing a critical shortage of electric power generating and transmission capacity. Forcing this already financially strapped and disinvested industry to waste yet more resources on unnecessary "pollution control" devices will only hasten the demise of reliable electric power.

Since 1977, when the last round of amendments to the Clean Air Act went into effect, coal-burning electric utilities have had to spend approximately \$10 billion per year to bring their power plants into compliance with federal regulations. In an economic growth environment, this wasted money alone could have placed at least 10 brand-new 1,000-megawatt baseload electric power plants on line per year.

The Edison Electric Institute (EEI) has conservatively estimated that the new amendments could cost the utilities an additional \$6 billion annually. Caps placed on total emissions mean that *no* coal-fired plants can be brought on line if they produce *any* emissions, unless further reductions are found from already operating plants. According to EEI, "These additional reductions will be so expensive that it would severely restrict future coal use for electricity production."

The financial and political strangulation of nuclear power, combined with the new environmental regulations, will leave the nation with *no* possibility for building new power plants.

Even at the most conservative projection of a 2% per year rate of growth in electricity demand over this decade, by the turn of the century the United States will need at least 100 gigawatts (1 gigawatt = 1,000 megawatts) of new baseload generating capacity. Today, only 44% of that 100 gigawatts is under construction. Considering the fact that it takes a decade to put baseload capacity on line, we are headed for a crisis in the ability of utilities to provide electric power.

For the first time since the Great Depression, electric utilities are finding themselves in bankruptcy court. State regulators have refused to allow them to recoup their cost of providing new capacity, and Wall Street has made it nearly impossible for them to raise new capital.

Now, new regulations would require coal plant emissions of sulfur dioxide to be cut by half, or by 10 million tons per year, by the turn of the century. Since 1973, coal-burning utilities have already cut sulfur dioxide emissions by 8 million tons per year. All of this has been done, despite the fact that the relationship between these emissions and acid rain is scientifically questionable.

Midwest hit hardest

The day after President Bush announced his proposals to amend the 1970 Clean Air Act last June, the Environmental Protection Agency made available its hit list of 107 coal-burning plants that it expects will be out of compliance. This list is optimistic, since it excludes plants that are under 100 megawatts of rated capacity, and assumes utilities will switch to lower-sulfur western coal, which actually cannot be economically burned in many eastern boilers.

Estimates of how large the rate increases to consumers will be to pay for either energy-wasting scrubbers, or the simple shutdown of older capacity and the purchased replacement power, ranges from 5-20%. For example, Cincinnati Gas and Electric, in the coal-burning Midwest industrial heartland, estimates its customers' rates will increase 12-16% by the year 2000.

The hardest-hit region will be the Midwest. The East Central Area Reliability region, or ECAR, which includes parts or all of the states of Ohio, Indiana, Pennsylvania, Kentucky, and Michigan, produces 85% of its electricity by burning coal. Out of the 107 power plants on the EPA hit list, 40 are in this region.

According to ECAR regional managers, 10,000 megawatts of coal capacity would be shut down if the amendments become law, in addition to the 137 coal-burning plants which are more than 30 years old and should be retired; this represents 10% of the region's total capacity. None of the plants that would be needed to replace that power are in any regional construction plan.

In addition, when scrubbers are added to a power plant, 5-6% of the plant's capacity is used just to run the scrubbers. That lost capacity will also have to be replaced. There will be a premature retirement of older plants, where the cost of bringing them into compliance cannot be economically justified. And since plants with scrubbers break down more frequently and suffer more forced outages, in the ECAR region alone, 1,500 megawatts of additional capacity will be needed just to keep the equivalent level of reliability the region now has.

There is no scientific basis upon which any of these environmental standards have been set. It would be more forthright and honest to simply say that the goal is to shut down a significant fraction of existing electric capacity, make sure no new plants are built, and raise the price of energy to industrial as well as individual consumers to cut consumption, because those are exactly what the results will be.