

Breathing Easier

Clean-Air Legislation Will Cost Americans \$21.5 Billion a Year

Industries, Workers, Regions Debate Who Should Pay How Much for Clear Skies

Better Car or Less Hair Spray?

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WASHINGTON—How much are Americans willing to pay to make the Blue Ridge Mountains look bluer, to save brook trout from acid rain, or to make living next door to a chemical plant no riskier than smoking six cigarettes a year?

To achieve air that pure, U.S. industry is on the verge of being socked with a bill for at least \$21.5 billion annually—more than General Motors, General Electric, Ford Motor, IBM and Exxon collectively earned last year. Ultimately, many of the staggering costs of coming clean will be paid by consumers and workers.

The wallop will be delivered by Congress in legislation proposed by President Bush that will have a wider impact on American business than anything since the 1986 tax-reform law. The Senate is poised to pass its version next week, and then the House will vote on the bill, perhaps in May.

But passage of the legislation, the first national clean-air bill since 1977, is considered so likely that the battle now is over high-stakes tradeoffs: Who will be the winners and the losers?

Touching Ordinary Lives

Utility customers in the heavily industrialized Midwest may stagger under double-digit electricity rate increases. And in Appalachia, the loss of thousands of coal-mining jobs could create ghost towns.

The legislation will touch the lives of average American families, adding perhaps \$600 to the cost of a new car. It will also require new anti-pollution gadgets for cars and maybe even a totally new fuel. And it will mean changes in products from aerosol air fresheners to windshield fluid.

The payoff will be fewer smog-alert days in some major urban areas, perhaps by the mid-1990s. Within 20 years, motorists stalled in big-city traffic may never again have to choke on the fumes of diesel buses. And eventually, lives and money should be saved by sharply reducing air pollution that now contributes to the premature deaths of more than 50,000 people a year and costs the nation \$10 billion to \$25 billion annually in health bills, according to Bailus Walker Jr., past president of the American Public Health Association.

"In economic terms, this is as significant a piece of environmental legislation as this country has ever seen," says economist Paul Portney of Resources for the Future, an independent think tank.

Pains and Gains

But dirty air isn't all that is making some people gasp. Achieving even small gains in clearing the atmosphere carries big price tags. According to government estimates, auto makers might have to spend \$7.5 billion a year just to cut an extra 1% from emissions blamed for smog; industry in general will have to spend \$5 billion a year—more than four times what the government spends on AIDS research—to prevent about 2,200 cancer deaths annually from toxic industrial discharges; and industry will also have to spend \$4.1 billion a year to neutralize acid rain, which a government-financed study says damages barely 0.1% of trees in the East and perhaps 750 of that region's thousands of lakes. (Some environmentalists contend the acid problem is much more serious than the study implies.)

U.S. industry already spends about \$33 billion a year on air-pollution control. Increasing that by two-thirds or more could trigger a recession, claims Sen. Steve Symms of Idaho, a hard-line conservative Republican. Most experts aren't as pessimistic but concede that such costs will be a heavy burden on businesses. The new clean-air regulation "is going to have a negative [economic] impact, and it could be fairly substantial," warns Dale Jorgenson, a Harvard economics professor. The result, he says, will be to slow growth in output and productivity and to place some U.S. companies at a disadvantage with foreign competitors.

The scramble in Congress now is over who should pay how much of the cleanup bill. In the debate over controlling smog-forming gasoline fumes, for example, car makers are lobbying to force service stations to install new \$3,000 pump nozzles, while the gasoline industry is lobbying to force the auto producers to outfit new cars with \$80 fume-catching canisters.

These battles ultimately pit region against region, industry against industry, and health against jobs, forcing a series of tradeoffs as delicate and complex as nuclear disarmament agreements.

Here are some of the more critical conflicts and what is at stake:

Cars vs. Hair Spray

Unless auto makers in the U.S. make the car of the 21st century run 99% more cleanly than those built before 1970, local officials in the smoggiest areas say they will have to require changes in consumer products such as hair spray and aerosol room fresheners or take them off the shelves in order to meet federal clean-air standards.

Dallas already has banned antifreeze-based windshield fluid and is considering controls on furniture polish and perfume. New Jersey has banned spray air fresheners. New York is considering changes

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In hair spray, hair mousse and household pesticide sprays. If vehicle exhaust isn't reduced further, warns New York State Environmental Commissioner Thomas Jorling, New York City may have to ban auto body shops and ration gasoline or order old, polluting cars off the road.

In terms of fewer emissions of hydrocarbons, today's car is already 96% cleaner than its predecessor of two decades ago. But with so many more vehicles on the road, air quality has stopped improving, and is expected to deteriorate in the next few years. As a result, Detroit is under pressure to cut back even more on car emissions, although auto makers complain that they lack the technology to do everything Congress is proposing.

In a striking display of cooperation, the oil and auto industries have succeeded in diluting a centerpiece of President Bush's original clean-air proposal: an ambitious program designed to launch methanol or another fuel as an alternative to gasoline. The industries instead won support for a type of reformulated gasoline that hasn't been invented yet.

In coming years, however, the two industries' interests are likely to collide as increasingly stringent anti-pollution requirements take effect in the dirtiest cities. At issue will be whether to squeeze even more improvement from the car or to demand more sweeping changes in fuel.

Cancer Risks vs. Jobs

In one of the most unsettled issues in the clean-air debate, Congress must decide whether it's worth forcing industries to spend some \$5 billion a year (or maybe even to close down) in order to reduce birth defects and respiratory disease and prevent a small percentage of the million or more total cancer cases diagnosed every year.

In Port Neches, Texas, the Neches chemical plant—owned by Texaco Chemical Co., a division of Texaco Inc.—tops a congressional list of U.S. factories posing the greatest cancer risks. The plant makes butadiene, a possible human carcinogen known to cause breast, uterus, skin and lung cancer in animals. This is just the sort of facility environmentalists think should be shut down if it can't virtually eliminate cancer risks to its neighbors. But if the factory closes, at least 400 workers will be dismissed, and additional job losses will ripple through Port Neches, an industrial-park town of 14,000 about 90 miles east of Houston.

The Texaco plant, which sells its butadiene to nearby rubber manufacturers, already is taking steps to reduce its 700,000 pounds of annual emissions 90% by the end of 1991. But company officials say there isn't any known technology that can cut emissions to as low as 400 pounds, as might be required by the new legislation.

And the Texaco unit is only one of many polluters facing the threat of mandatory shutdown under proposals to cut toxic industrial emissions. Steel companies claim almost all coke ovens could be closed if the legislation isn't softened before passage.

Lawmakers are considering letting such companies avoid shutdown by purchasing neighbors' homes to create a buffer zone. But there are so many residents near Texaco's plant—some as close as 2,000 feet from the gate—that it isn't practical to think about buying them out.

This doesn't deter environmental advocates, who insist that toxic and cancer-causing industrial fumes have been largely unregulated for too long. "No one should have to die because they live next to a chemical plant or steel plant," insists Sierra Club lobbyist Daniel Weiss. The environmentalists wield a strong political weapon in Congress: No lawmaker wants to be on record as voting for cancer.

'Dirties' vs. 'Cleans'

Nelson Starcher, a 47-year-old coal miner in Idamay, W. Va., has a big stake in how Congress fashions acid-rain legislation. He could lose his job. The Robinson Run mine where he has worked almost 21 years feeds high-sulfur coal by conveyor belt to Allegheny Power System Inc.'s Harrison power plant. The plant is among the 111 dirtiest utilities that are targeted by the proposed legislation.

If the plant installs an expensive smoke-

On a Clear Day

Key provisions of Clean-Air legislation pending in Congress

SMOG

- Auto makers would have to clean up vehicle exhaust, beginning as early as with 1993 models.
- A portion of the nation's cars would have to begin running on fuel that is cleaner than today's gasoline.
- A leading proposal would require an increasing percentage of cars in the nine smoggiest cities to run on reformulated gasoline, starting with 1995 models. A second phase requiring an even cleaner fuel would take effect with 1999 models.
- Businesses ranging from bakeries to computer makers could face increasingly stringent curbs on chemical emissions.

ACID RAIN

- Some 111 utilities in 21 states would have to cut sulfur dioxide emissions—possibly by applying costly scrubbers or switching to cleaner coal—as early as 1995.
- Other utilities that don't meet the benchmark would have to start curbing emissions as early as the year 2,000.

TOXIC POLLUTION

- Oil refineries, coke ovens, chemical plants and other factories would have to apply the best available technology to curb emissions that cause cancer, birth defects and respiratory disease.
- A second phase would require controls to reduce the health risks that remain after this technology is applied. Under one proposal, firms that can't meet the health standard might be shut down.

Source: Pending House and Senate bills

stack-scrubbing device, Mr. Starcher gets to keep his job. But if Allegheny finds it less costly to switch to cleaner-burning low-sulfur coal, Mr. Starcher says he and 420 fellow workers will be out of a job by about mid-1994. And, he adds, "there's not that many other jobs around here."

Exactly how Congress writes its acid-rain provision will determine the fate of up to 19,000 high-sulfur coal mining jobs in West Virginia, Indiana, Illinois, Ohio and Pennsylvania. Also at stake are electricity rates in the Midwest and Southeast that producers warn could jump as much as 25% in some places, burdening homeowners and threatening the loss of more jobs in energy-intensive industries such as steel, autos, glassmaking and aluminum.

Solving the acid-rain problem is the trickiest political task in the clean-air debate, and it essentially boils down to a region-vs.-region conflict that has stymied action for years.

Most potential economic harm would occur in the heavily industrialized Midwest and Southeast, where nine states emit 51% of the nation's sulfur dioxide but would make 77% of the tonnage reductions to lower acid-rain effects in the Northeast. The hardest-hit areas economically want the rest of the nation to share the burden. This would be done, for example, by helping to pay the cost of a scrubber for the power plant that burns Mr. Starcher's coal.

A comparison shows the disparities driving the fight.

American Electric Power faces costs of \$8 billion over 10 years to cut pollution at its plants. One facility, Gavin Station on the Ohio River, is cited by the Environmental Protection Agency as the nation's dirtiest coal-fired plant. Its 100-story smokestack spews sulfur dioxide at a rate five times higher than the government's "clean" benchmark.

Across the country, PacifiCorp already burns more expensive, cleaner coal and has spent \$700 million on pollution controls for 11 of its 24 plants in Utah and Wyoming. Some of its units, among the least polluting in the nation, are 30 times cleaner than Gavin Station. Plants like these, located predominantly in the West, argue they have already paid once to clean up and shouldn't have to spend more money subsidizing the Midwest.

Some Midwestern utilities complain about the privileged status of paper mills, smelters and factories that supply their own power. These plants emit roughly 30% of the nation's sulfur dioxide, according to the EPA. Yet they won't be required to do anything for the acid-rain cleanup. In Indiana, three dirty, high-sulfur, coal-fired generators owned by Aluminum Co. of America to supply power for one of its plants wouldn't be touched by acid-rain legislation.

Big vs. Small Business

For the past 20 years, the federal government has fought industrial smog by demanding cutbacks primarily from large factories, such as Minnesota Mining & Manufacturing Co.'s Chicago-area plant, that emit more than 100 tons of smog-forming chemicals a year.

In spreading adhesive on Scotch-brand tapes at its Bedford Park plant in the Chicago suburbs, 3M makes an unwanted by-product: gaseous, volatile organic compounds that form ozone, a major ingredient in smog. Since 1970, 3M has spent \$17 million for pollution controls at the 600-employee factory, and it is spending another \$7.5 million voluntarily to cut emissions even further by the middle of this year.

But Chicago still has unhealthy levels of smog and might seek even deeper reduc-

tions from large polluters, such as 3M. The company, though, says it could cost 10 times more to incinerate each remaining pound of pollution compared with earlier reductions. "One of the options, if they really get harsh with us in Chicago, is to move some of our facilities out of Chicago," says Robert Bringer, a 3M vice president.

Another option, under consideration by lawmakers, is to seek more pollution reduction from smaller offenders. A study done for Congress estimates that large industrial sources emit only about 8% of ozone-forming compounds, while about 46% of the pollutants come from smaller businesses, such as commercial bakeries, auto body shops and furniture makers, that release under 100 tons a year.

"Right now, below-100-ton sources clearly aren't bearing their fair share," says Joshua Margolis of AERX in Washington, D.C., a firm that specializes in helping companies comply with smog rules.

A few of the smoggiest areas, such as New York and Los Angeles, already regulate the use of solvents, paints and finishes that are the source of ozone pollution at smaller companies. As a result, some furniture makers in California have moved to Mexico.

The Winners

For all its economic minuses, though, the clean-air legislation also will foster economic winners. It will probably help low-sulfur coal companies, like Pittston Co. and Sun Coal Co., a unit of Sun Co., gain market share in the next decade from high-sulfur coal companies.

The natural-gas industry will pick up a few extra utility customers and may launch itself as a provider of transportation fuel. Other cleaner-burning fuels such as methanol and ethanol also could enjoy a boost, either replacing gasoline or more likely becoming an additive to a cleaner, reformulated gasoline.

The scrubber industry can capitalize on a surge of demand for devices to reduce sulfur dioxide from utility smokestacks. The clamor for pollution-control equipment of many kinds will spur engineering, design and manufacturing. A whole new business could bloom to broker the pollution-reduction credit system set up by acid-rain proposals. Under this system, utilities that want to increase their sulfur-dioxide emissions must either cut their own pollution rate or buy credits from a plant that has made extra reductions.

Backers of the legislation say the breathing public will be the biggest winner if air quality improves. "We'll have the cleanest air for a major industrialized country," predicts William Rosenberg, the EPA's chief air-pollution official. "We'll have the cleanest cars, the cleanest power plants, the cleanest fuel for our cars and the least amount of air emissions of toxic chemicals in the world—by far."

Countries with the strictest environmental requirements, adds Frederic Krupp, executive director of the Environmental Defense Fund, "are going to be the ones that are best able to compete in the world marketplace as individuals and societies increasingly demand green technologies."

But the prospect of spending \$21.5 billion or more to clean up the air still hasn't convinced some environmentalists that the choices being made by President Bush and Congress will make the air breathable for all Americans. "The proposed legislation," says Gene Karpinski, executive director of U.S. Public Interest Research Group, "will not be the final solution to cleaning our cities and getting rid of toxic air emissions."