

SYMPOSIUM

ENERGY AND POLITICS IN THE CLEAN AIR BILL

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The Clean Air Act Amendments of 1990 (the Amendments), a landmark in environmental legislation, took a decade of political struggle to produce.¹ They are an incredibly complex package. When the U.S. Senate voted its final approval of the bill, the Senators had on their desks a copy of the bill, in the form of an eight-inch pile of approximately 1,500 pages of type-script. The bill was the result of a long, grueling, and very political process, in which both the Senate and the House worked through the resolution of an almost endless array of regional, ideological, and partisan conflicts.² Disputes arose over virtually every detail of how complex planning processes should work, over technological and scientific questions of how much pollution reduction was possible (and at what cost), and over the scientific and policy question of how much pollution reduction was really needed. Not surprisingly, the need to increase environmental protection was the focus of the campaign for strengthening the Amendments to the Clean Air Act. The campaign against strengthening the Amendments centered largely around the economical cost of such increased protection. These two issues formed the axis around which congressional debate on the bill revolved. The concentration on issues of cost and pollution may have obscured other broad and important implications of the decisions Congress made in this bill. Some of the most important decisions concerned the energy policy of the United

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1. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (codified as amended in scattered sections of 42 U.S.C.).

2. The Senate Bill was passed in lieu of the House bill. S. 2516, 101st Cong. 2d. Sess. (1990).

States, particularly because a significant part of the bill centered on setting up the extensive new regulatory requirements for coal-fired power plants and automobiles.³

This essay outlines some of the political considerations that shaped the positions Congress, and more particularly the Senate, took on key issues, focusing on those issues which affect automobiles and trucks. I hope that this essay will convey the political complexity of the process that produced the Clean Air Act Amendments as well as demonstrate the significance of the Amendments to the energy policy of the United States.

Because automobiles and trucks are America's greatest source of pollution, the regulation of pollution from cars and trucks was one of the issues that dominated the politics of the legislative process on the bill.⁴ In Denver, eighty percent or more of carbon monoxide pollution originates from motor vehicles. In cities such as Los Angeles and New York, where smog is the premier pollution problem, automobiles are the source of at least fifty percent of the smog in these areas.⁵ Accordingly, for local authorities attempting to clean up their air, automobiles are at the crux of the issue.⁶ Clearly, a little pollution reduction from the hundreds of thousands of vehicles used in a major metropolitan area on a daily basis quickly adds up to significant changes. However, achieving infinitesimal or no reductions in the emissions of new motor vehicles will not result in a maintenance of the status quo. Instead, the pollution problem will continue to increase because the number of vehicles and the number of vehicle miles driven every day is growing implacably in virtually every American city.⁷ In the Denver area, vehicle miles driven have risen two to three percent per year, even during a time when the area's population declined and its economy shrank after the oil price collapse of the early 1980s.⁸ Vehicles are driven an astounding 30 million miles each working day in

3. See S. REP. NO. 101-228, 101st Cong., 2d Sess. 82-127, 127-261 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3468-512, 3512-645.

4. S. REP. NO. 101-228, 101st Cong., 2d Sess. 1 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3387.

5. See, e.g., *119 Metropolitan Areas Fail U.S. Standards*, LOS ANGELES TIMES, Aug. 16, 1990, at P2.

6. See, e.g., S. REP. NO. 101-228, 101st Cong., 2d Sess. 92 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3477.

7. See generally S. REP. NO. 101-228, 101st Cong., 2d Sess. 82-121 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3468-506.

8. *Regional News*, UPI, April 1, 1982, *available in* LEXIS, Nexis Library, UPI File.

the Denver-Boulder metropolitan area, which consists of 1.8 million residents.⁹ Planners in that area project that this mileage figure could double in two decades if the area's hopes for economic growth are realized.¹⁰

There are several different means the government could employ to reduce the impact of cars and trucks on urban air pollution. However, much of the debate over the Clean Air Act Amendments focused on one potential method: requiring new vehicles to emit fewer pollutants per mile of use. Stricter regulation of automobile and truck emissions is attractive technically, administratively, and economically. It can be accomplished by requiring that relatively uniform technological improvements be incorporated in new vehicle designs at a modest cost per vehicle. Once implemented, these technical improvements would complement attempts to achieve similar levels of pollution reduction by regulating other pollution sources. Such a strategy, however, requires imposing a whole series of custom-designed, capital-intensive controls on a wide variety of other pollution sources. These sources may include dry cleaners, bakeries, wood stoves, paint manufacturers, paint applicators, and virtually every type of business that deals with solvents, heat, or combustion in any form, each being a relatively small, but significant, contributor of pollutants.

On the other hand, the importance of the auto industry to the national economy weighed heavily in deciding how much pollution reduction was to come from cars and trucks and how much was to come from other sources. The automobile industry is not only one of the largest employers in the United States, but one that has publicly struggled over the past two decades against aggressive competition from foreign manufacturers.¹¹ Accordingly, how far to push limits on new vehicle emissions was one of the most politically charged and most intensely debated questions Congress addressed regarding the Clean Air legislation. The debate showcased the widely divergent viewpoints on what standards were technically possible, how much they would cost, how cost-effective they would be, and whether requiring new cars to run cleaner would or would not appreciably reduce pollution in our cities.

9. *Id.*

10. *Id.*

11. See, e.g., Doron P. Levin, *Grim Outlook of Early 1980s is Back for U.S. Automakers*, N.Y. TIMES, Dec. 7, 1989, at A1.

Cars and trucks are not only the leading source of urban air pollution, they are also the source of the United States' dependence on foreign oil.¹² Motor vehicles use about fifty percent of all petroleum in the U.S., and both their percentage share and the total amount of petroleum used are increasing as vehicle use and vehicle numbers rise.¹³ Indeed, the figures for the growth of vehicle use translate directly into the growing consumption of oil. Growing consumption, unfortunately, means growing dependence on foreign sources, particularly on the nations of the Middle East. The United States is still one of the world's largest oil producers, but the vigorous exploitation of domestic oil resources over the past century has left the country with a declining reserves base. Furthermore, oil experts unanimously agree that there is no possibility whatsoever of sustained major increases in present domestic production. We are draining our oil fields faster than we are able to find new ones, and there are precious few places which have not already been surveyed. Saudi Arabia and the Middle East, however, have huge reserves of oil that are very inexpensive to produce in comparison to the United States' remaining reserves. Unlike oil production in the United States, Middle Eastern production is controlled by the various governments, each of which has been pursuing a deliberate policy, over the past decade, of increasing their share of the world market.

As important to U.S. energy policy considerations as the amount of energy consumed in the transportation sector is the fact that American cars, trucks, and airplanes are virtually one hundred percent dependent on petroleum for fuel. At this point, while there are feasible alternatives, little practical ability to substitute these alternatives for gasoline or diesel fuel exists. The one notable exception, however, is the ability to displace some gasoline use by blending limited amounts of alcohol into motor fuel. From an energy security viewpoint, it is this dependence on foreign oil that makes the economy of the United States so vulnerable to oil price increases and makes the United States so fearful of a disruption of its oil supplies. Adding to this fear and

12. The entire transportation industry, including airlines, accounts for two-thirds of petroleum used in the United States. See S. REP. NO. 101-228, 101st Cong., 2d Sess 109-12 (1990), reprinted in 1990 U.S.C.C.A.N. 3494-97.

13. See, e.g., Douglas Jehl, *Bush's Anti-Smog Plan to Stress Alternate Fuels*, LOS ANGELES TIMES, June 4, 1989, at pt.1; Peter Fusaro, *New Impetus Likely to Lead to U.S. Commercialization of Alternate Motor Fuels*, ENERGY LISTENER, Nov. 8, 1990, available in LEXIS, Nexis Library, Energy Listener File.

vulnerability are two simple facts. First, the price of oil is largely controlled by those Middle Eastern producers who can alter world production at will. Second, as noted above, the United States' supply of oil is increasingly dependent on the foreign sources that supplied forty-seven percent of the oil used by Americans last year. There is a great deal of controversy and rhetoric over whether oil supply disruptions are a real threat in today's world, with its nonintegrated, mobile world market. An embargo of oil to the United States may no longer be feasible in today's world oil economy, although a reverse embargo was successfully imposed on Iraq.¹⁴

Nevertheless, it is clear that there are several countries in the Middle East that, either alone or in combination with some of their neighbors, are capable of disrupting world oil production and prices at will. Given today's oil market, they might have a very hard time actually keeping oil from getting to the United States. It would be relatively easy for them, however, to cause huge increases in the price the world pays for that oil. This vulnerability to such disruptions clearly increases the United States' susceptibility to economic and political blackmail. Furthermore, as the events of the past year have demonstrated, dependence on politically controlled oil production in a politically unstable part of the world can have the most draconian of foreign policy consequences — war.

Even apart from market disruptions, oil imports present an economic problem. Oil imports, while growing, are already by far the largest part of the U.S. trade deficit. The United States' trade deficit with Japan was an average of 3.4 billion dollars per month for the first eleven months of 1990.¹⁵ But the far less publicized trade deficit in oil with the Middle East amounted to five billion dollars a month over the same period.¹⁶ Clearly, increasing oil consumption in the United States poses enormous economic and political problems for its citizens. The Senate Environment Committee, in its handling of the Clean Air legislation, did attempt to reduce American oil consumption by reporting a bill to Congress which included a carbon dioxide

14. Kim Coghill, *Energy Policy Still Vulnerable a Year After Gulf War*, REUTERS BUS. REP., July 31, 1991, available in NEXIS, Lexis Library, Reuters File.

15. Jim Impoco, *Cranking Up The Export Machine*, U.S. NEWS & WORLD REP., Nov. 18, 1991, at 76, 76.

16. See Senator J. Bennett Johnston, *The National Energy Strategy*, Address Before the U.S. Chamber of Commerce (July 24, 1991) available in LEXIS, Nexis Library, Federal News Service File.

(CO₂) emission standard for automobiles.¹⁷ Because CO₂ and water are the end products of perfect fuel combustion, a CO₂ limit is in effect an efficiency standard. The reported bill's standard translated into a requirement that the average efficiency of all the cars sold in the United States by any manufacturer would be required to be approximately forty miles per gallon (mpg) of gasoline.¹⁸ At present, there is an overall requirement that manufacturers' new cars have to get 27.5 mpg. This requirement is known as the Corporate Average Fleet Efficiency (CAFE) standard, and is part of the Energy Policy and Conservation Act of 1975.¹⁹ There is no CO₂ standard in place, however, and the efficiency of vehicles on the road today, old and new, is about twenty mpg.

Under pressure from Senators representing auto-producing states, the leaders of the Senate Environment Committee abandoned the proposed CO₂ standard early into the intense negotiations that followed the Committee's acting on the bill.²⁰ These negotiations were a key feature of action on the Clean Air bill in the Senate. The Environment Committee leadership anticipated broad opposition to its bill from Senators not on the Committee, and thus began negotiating with opponents to clear the way for introducing the bill to the Senate as a whole. This is a routine action in the Senate, where the rules, which allow for filibusters of bills and often require unanimous consent for legislative business to move forward, give considerable power to a determined minority. The Committee leaders determined early on that they needed to reach an agreement with the Administration in order to exercise control over the Republican opponents of additional restraints on automobiles, as well as to disarm the threat of a Presidential veto of the bill. Auto industry advocates, including a number of Senators who were determined to command a majority, argued that the CO₂ standard called for radical changes in vehicle design. The result, a Committee decision to lower the CO₂ standard, forced industry to make design changes to prevent urban smog which was, at this time, a higher priority for the Environment Committee leadership than establishing

17. S. 1630, 101st Cong., 1st Sess (1989).

18. *Id.*

19. This Act was one of the political results of the 1973 Arab oil embargo. Energy Policy and Conservation Act of 1975, 42 U.S.C. §§ 6201-422 (1988).

20. See generally 136 CONG. REC. H2, 755-945 (daily ed. Apr. 3, 1990).

changes to curtail oil use.²¹

There are, of course, other ways to reduce oil use aside from increasing the gas mileage of the new car fleet. One way is to promote the use of alternative fuels not derived from oil. Alternative fuels also hold great promise for reducing urban air pollution. Gasoline and diesel fuel are complicated mixtures of widely different chemical constituents. Although combustion of such mixtures is inherently difficult and inherently polluting, the engineering departments of the major vehicle manufacturers have done a marvelous job of forcing engines to burn these fuels more efficiently and finding ways to further clean up emissions after they leave the engine. The use of alternative fuels, however, has great potential and could be inherently simpler. Theoretically, cleaner alternative fuels should be far easier to burn. The most notable of the "simpler" alternatives are compressed natural gas and alcohol fuels: ethanol or methanol. Electric vehicles are another well-known alternative, though of a slightly different sort. Although electric vehicles have virtually no emissions themselves, the electricity they use, generated by power plants, may produce pollution. However, even coal-fired power plants that predate the sophisticated pollution controls now required still produce far less pollution per electric vehicle mile than gasoline-burning automobiles.

Despite the existence of such alternatives, the various versions of Clean Air legislation debated in the 99th and 100th Congresses largely ignored the potential of alternative fuel vehicles as a means of reducing urban pollution. Congress was single mindedly focused on new emissions standards to reduce pollution from gasoline and diesel vehicles.²² Because gasoline and diesel fuels currently have a virtual monopoly as a transportation energy source, this was not an illogical position to take. Alternatives to gasoline and diesel powered vehicles not only have enormous potential to reduce pollution, they obviously have far-reaching implications for American energy use and the country's energy policy. Unfortunately, true alternative fuels cannot simply be poured into the tank of a car. While it is true that moderate amounts of alcohols or alcohol derivatives can be

21. The decision was also influenced by the attitude of the major players on the House side, who bypassed the mileage issue altogether. See generally 136 CONG. REC. S3, 717-836 (daily ed. Apr. 3, 1990); 136 CONG. REC. H2, 755-945 (daily ed. Apr. 3, 1990); 136 CONG. REC. H12, 845-957 (daily ed. Oct. 26, 1990).

22. *Id.*

blended with gasoline to create fuels that will work in existing vehicles, generally, vehicles designed to hold and burn gasoline will not run on ethanol, methanol, compressed natural gas, or liquified petroleum gas. Alternatives face another problem: they lack the huge infrastructure that has been developed for conventional fuels. Service stations that sell these fuels are the most visible part of the network of refinement, storage, transportation, and delivery that has been built for this industry. Moreover, this infrastructure, which has evolved over several decades, represents an investment of tens of billions of dollars. Establishing real alternatives thus requires the creation of special vehicles and the creation of an infrastructure to support them. Politically, any legislation requiring the manufacture of such special vehicles would face strong opposition from automakers. Not only do automakers not want to be required to build an entirely different kind of vehicle, they do not want to be saddled with the task of trying to market such vehicles to a skeptical public without a supporting infrastructure.

Interestingly, the biggest backer of alternative fuels was the State Government of California.²³ The pollution problems of Los Angeles and the surrounding areas were viewed as being so enormous that state and local officials did not believe they could achieve clean air over the next twenty years simply by enacting further limits on emissions from conventional vehicles. The Clean Air Act defines "clean air" by articulating standards which set out the maximum concentrations of various pollutants that can be allowed without threatening the public health.²⁴ California, particularly the California Air Resources Board and the South Coast Air Quality Management District, wanted to try superclean, alternative fuel vehicles. Such additions were sure to reduce pollution in the Los Angeles basin, better known as the world epicenter of automobile traffic. To overcome the infrastructure problems, California wanted to require: Manufacturers to make and sell alternative fuel vehicles, and service stations, in the most polluted areas, to sell alternative fuels.²⁵

Ironically, some of the environmental champions on the Senate Environment Committee viewed alternative fuel vehicles as a threat to pollution reduction. They believed that projected

23. See Marshall Yates, *Senate Approves Clean Air Act Reauthorization*, 125 Pub. Util. Fortnightly (Pub. Util. Rep., Inc.) No. 9, at 26 (Apr. 26, 1990).

24. See *id.*

25. See *id.*

pollution reductions from alternative fuel vehicles would be used as a trade-off for the reductions the Committee had proposed to get from very stringent emissions standards for conventional fuel vehicles.²⁶ In addition, the manufacturers were pressing hard to get these proposed standards relaxed because each increment that tightened down standards required further and more expensive design changes. The Committee leaders urged forward a platform of making all new cars as clean as technically feasible. The manufacturers' platform opposed the Committee leaders' platform as being expensive and wasteful, as new cars would bear the expense of meeting these standards even though they would be sold in areas that did not have serious air pollution problems. The Committee leaders feared that their goal of making all new cars and trucks as clean as possible would be undermined by large pollution reductions from alternative fuel cars strategically placed in the smoggiest cities. This, in fact, was the strategy of the Bush Administration.²⁷ The Administration proposed legislation with significantly weaker emissions standards for new cars, but called for additional pollution reduction in the dirtiest cities by use of alternative fuel cars. The Bush proposal called for the manufacture and sale of one million alternative fuel vehicles per year by the end of the century.

There are several good reasons for a uniform requirement of the most stringent emissions controls. Some have been mentioned above: the cost per car is relatively low, although the total cost may be high; cars are by far the largest single source of urban pollution; car traffic keeps growing; and the control of other sources is expensive and disruptive of small and mid-size business enterprises. A number of potential problems, however, exist with getting pollution benefits from alternative fuel vehicles. To start, the creation of large numbers of alternative fuel vehicles is a complex problem. Indeed, some parties questioned whether, even with a strong congressional mandate, such a thing would be possible. The automakers had a wonderful shorthand for this: even if they were to build alternative fuel vehicles and put them in showrooms, who would be crazy enough to buy one when they did not know where they could get fuel, especially when they left the limits of their polluted city?

Accordingly, another approach to alternative fuels

26. See *id.*

27. See, e.g., Jehl, *supra* note 13, at 1; George Lobsenz, *Bush to Unveil Clean Air Bill This Week*, WASHINGTON POST, June 3, 1989, at A1.

emerged: the targeting of alternative fuel use to commercial and government vehicle fleets. Interestingly enough, the leading proponents of this approach were people from the natural gas industry. This group interested in developing new markets for its product and had already put together some stunning success stories of conversion of commercial fleet vehicles from gasoline to compressed natural gas fueling in the private sector.²⁸ The advantages of this approach were multiple. First and foremost, private sector interests had already shown the approach was feasible and cost-effective, even without factoring in the value of the pollution reductions. Second, the large cities with the worst pollution problems had considerable numbers of commercial fleet vehicles, such as taxicabs, delivery vans, utility service vehicles and government fleets. These working vehicles logged a substantial number of miles and, for the most part, never left the general area. Third, imposing a requirement for alternative fuel use on commercial fleets seemed to provide the easiest passage to an alternative infrastructure as many commercial fleet owners provide their own fuel and services. With the feasibility of such an approach established, debate focused on the details. Particularly, the focus was on how to define what qualified as an "alternative fuel vehicle." Because the debate was again driven by the need to achieve certain reductions in urban air pollution, the definition was set out in terms of a more stringent set of emissions standards than would apply to conventional fuel vehicles. There was always the possibility, of course, that these stricter standards, if they were not strict enough, could end up being met by the use of gasoline. The automobile industry did not want to be forced to build an entirely different kind of vehicle, and was leery about the marketing of vehicles that used true alternative fuels. Due to these fears, industry worked with the Administration to try to redraft the definitions in such a way as to make it possible to meet these "alternative fuel" standards by using a reformulated special blend of gasoline and adopting some additional pollution controls.

Eventually, the Senate leadership crafted a compromise along these lines between the Committee leadership's interest in maximum pollution reduction and the Administration's insistence on minimizing the total economic cost of the program. Under the compromise, the Administration backed down from

28. See Yates, *supra* note 23, at 27.

its initial commitment of putting one million alternative fuel cars on the road and concentrated on putting alternative fuels into government and commercial vehicle fleets. The negotiators did leave open, to the State of California, the ability to require alternative-fuel passenger cars for the general public. In both cases, though, the emissions standards used to define alternative fuel cars allowed the possibility that petroleum-based fuels (*i.e.*, "reformulated" gasoline) could turn out to be the alternative. The compromise weakened the emissions standards proposed in the Committee bill and extended the deadlines for manufacturers to meet these new standards.

The compromise did not go unchallenged. Senator Pete Wilson (R-CA) and I put together an alternative designed to appeal to Senators who felt the compromise would nullify the possible energy policy benefits of an aggressive alternative fuels program or who felt that it would compromise the pollution reductions needed by the dirtiest cities.²⁹ The Wirth-Wilson Amendment combined elements that the compromise had used to offset each other. It included very strict emission standards for convention fuel vehicles, required the widespread use of cleaner, reformulated gasoline blends, and required the manufacture of large numbers of true alternative fuel vehicles, both for the general market in the dirtiest cities and for vehicle fleets.³⁰ The Amendment was vigorously debated on the Senate floor. The key argument against it was led by Majority Leader George Mitchell, one of the Environment Committee leaders, a long-time champion of the environment and a major architect of the compromise. Mitchell maintained that if the Wirth-Wilson Amendment were passed, it would push the Administration and the Senators who shared the manufacturers' viewpoint on new controls into total opposition. This, he argued, would make final passage of a Clean Air bill impossible, thus sacrificing any real improvement in pollution from automobiles as well as sacrificing other areas with which the bill dealt, including acid rain control, new controls on toxic emissions, and other issues.³¹

The drafters of the Wirth-Wilson Amendment believed that

29. 136 CONG. REC. S2803-07 (daily ed. Mar. 20, 1990) (amendment to S. 1630, 101st Cong., 2d Sess. (1990)). This amendment was sponsored by Senator Wirth and Senator Wilson.; *see generally* 136 CONG. REC. 2732-2768 (daily ed. Mar. 20, 1990) (debate on Wilson-Wirth Amendment and statements by Senators Wirth and Wilson).

30. *See id.*

31. *See id.*

a strong majority for strict controls and alternative fuels would force opponents to back down rather than kill the bill. Mitchell's arguments, however, gained the support of at least seven Senators who had previously supported the types of measures embodied in the Wirth-Wilson Amendment, and the Amendment was defeated on a 52-46 vote.³² Similar amendments aimed at other sections of the bill also failed. However, many of the details of the compromise were revisited and revised in the Conference Committee in which the Senate and House negotiated a final blend of the House-passed and Senate-passed versions of the bill. This version was ratified by both Houses of Congress and signed into law by the President on November 15, 1990.³³

There is no question that the final bill will make an important contribution to cleaning up air pollution in urban areas. It also provides significant gains for the environment in its aggressive new programs to control toxic air pollutants, and the pollutants responsible for acid rain. However, the final bill bypassed a major opportunity to reduce American dependence on imported oil. The final bill did not achieve reductions in U.S. oil consumption by requiring greater efficiency, although it did create an important opportunity for alternative fuels to penetrate the monopoly held by petroleum fuels in the American transportation sector. The compromises made, however, left open the possibility that this opportunity would be taken by pseudo-alternatives. These pseudo-alternatives may meet the pollution reduction goals laid out in the final bill, but will fail to advance the viability of nonpetroleum fuels.

32. *See id.*

33. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (codified as amended in scattered of 42 U.S.C.).