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Lotus Notes Newsstand



No. 89 Thursday May 8, 1997

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Regulation, Law & Economics

Transportation

Clinton Administration Readies For Fight Over Changes To ISTEA's CMAQ Program

The Clinton administration is gearing up for a fight to preserve key environmental programs created by the 1991 surface transportation law, including the program to help cities meet air quality goals, officials told BNA May 7.

Following a White House meeting attended by Vice President Al Gore, administration officials said they are mobilizing to oppose proposals in Congress to allow funds now set aside for Clean Air Act attainment and other environmental goals to be used for a host of highway projects.

The officials said the administration is concerned about reports that both House and Senate committees are considering plans to make flexible the funds for the Congestion Mitigation and Air Quality program and the Transportation Enhancements program that were created by the Intermodal Surface Transportation

Efficiency Act. The administration, they said, will oppose any changes that would allow the CMAQ and enhancements money to be "flex" the money to other highway program categories.

"We're standing firm with the president's proposal," a senior official said after the session, which also was attended by many state and local groups that strongly back the environmental programs created by ISTEA.

According to officials who attended the meeting, Gore reiterated the administration's view that ISTEA is as much an environmental measure as it is a transportation law. If lawmakers in Congress attempt to roll back ISTEA's environmental provisions in this year's reauthorization, "we're going to have a fight," Gore was quoted as saying.

"They said they would be judging ISTEA as an environmental bill," said another official who attended the meeting.

Provisions Divide House Members

The prospect that Congress this year would attempt to change the nature of the CMAQ and enhancements programs was suggested recently, when lawmakers and aides on the House Transportation and Infrastructure Committee said they were discussing a "compromise" reauthorization bill that would allow states to transfer up to 50 percent of funds in all of ISTEA's highway categories, including those for CMAQ and enhancements (84 DER A-28, 5/1/97).

But that plan to allow the environmental funds to be used for various projects drew fire from Democrats on the committee, who told BNA that they would undermine the purpose of the programs. Among others, Rep. Nick Rahall (D-WV) said giving states the ability to transfer the CMAQ funds to other uses would dilute the programs.

According to aides, the committee currently is drafting its ISTEA reauthorization bill, describing the work in progress as about an inch thick. While the GOP and Democratic lawmakers are in agreement about many of the bill's provisions, they said, the treatment of CMAQ and the enhancements continues to divide members.

However, according to administration officials, the proposals also are being discussed on the Senate side. While not as far along as the House committee, the Senate Environment and Public Works Committee is said to have begun working on some issues raised by the ISTEA rewrite.

Sensing the threat to the programs, the administration called a host of groups to the White House to discuss the status of the reauthorization, primarily the constituency that supports the environmental aspects of the act. Among others, officials from the National Association of Counties, the National League of Cities, the U.S. Conference of Mayors, and the American Public Transit Association were invited to the meeting.

"The administration, from the vice president on down, said they would not support changes in the CMAQ and enhancements [programs] to expand eligibility and flexibility," said Hank Dittmar of the Surface Transportation Policy Project.

Officials from both the Transportation Department and Environmental Protection Agency joined White House officials at the session, meeting attendees said.

'NEXTEA' Would Increase Funds

While providing only very small spending increases overall, the administration's own reauthorization bill would boost funding for both CMAQ and enhancements.

Under the National Economic Crossroads Transportation Efficiency Act, or NEXTEA, CMAQ funds would be increased 30 percent, from \$1 billion annually to \$1.3 billion annually. Also, it would increase funds for

enhancements by 30 percent.

Officials defended current provisions in ISTEA that do not allow the CMAQ and enhancements programs to be transferred to other categories.

"They provide congestion relief and promote air quality goals," an official said. "For a relatively small amount of money, you get very tangible benefits."

The official said the meeting is only one in a series of briefings that are planned on the reauthorization. A briefing for labor groups on other aspects of the legislation is planned next, the official said.

By Nancy Ognanovich



Total Pages: _____

LRM ID: JAB107

**EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001**

Tuesday, April 15, 1997

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below

FROM: James J. Jukes (for) Assistant Director for Legislative Reference 
OMB CONTACT: James A. Brown
PHONE: (202) FAX: (202)

SUBJECT: **TRANSPORTATION** Testimony on **TRANSPORTATION** Draft Bill on **ISTEA**
Reauthorization (National Economic Crossroads Transportation Efficiency Act
of 1997) 

DEADLINE: 4:00 p.m. Wednesday, April 16, 1997

In accordance with OMB Circular A-19, OMB requests the views of your agency on the above subject before advising on its relationship to the program of the President. Please advise us if this item will affect direct spending or receipts for purposes of the "Pay-As-You-Go" provisions of Title XIII of the Omnibus Budget Reconciliation Act of 1990.

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P. 2/11

Kevin Neyland
Dorothy Robyn

**LRM ID: JAB107 SUBJECT: TRANSPORTATION Testimony on TRANSPORTATION Draft Bill
on ISTEa Reauthorization (National Economic Crossroads Transportation Efficiency Act of 1997)**

**RESPONSE TO
LEGISLATIVE REFERRAL
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If your response to this request for views is short (e.g., concur/no comment), we prefer that you respond by e-mail or by faxing us this response sheet. If the response is short and you prefer to call, please call the branch-wide line shown below (NOT the analyst's line) to leave a message with a legislative assistant.

You may also respond by:

(1) calling the analyst/attorney's direct line (you will be connected to voice mail if the analyst does not answer); or

(2) sending us a memo or letter

Please include the LRM number shown above, and the subject shown below.

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The following is the response of our agency to your request for views on the above-captioned subject:

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_____ No Objection

_____ No Comment

_____ See proposed edits on pages _____

_____ Other: _____

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**STATEMENT OF SECRETARY OF TRANSPORTATION RODNEY E. SLATER
BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
PROVIDENCE, RHODE ISLAND
APRIL 21, 1997**

Mr. Chairman, I thank you for the opportunity to testify in behalf of reauthorizing the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the landmark transportation legislation which you and your committee helped to shape six years ago.

This morning I would like to speak about the National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA), the successor to ISTEA that President Clinton and Vice President Gore recently joined me in proposing.

I want to express my appreciation, Mr. Chairman, to you for introducing NEXTEA in the Senate. I also know that you have introduced another major proposal, and that it shares many goals and themes with NEXTEA. We look forward to working with you on reauthorization during the legislative process.

There is no question of the importance of reauthorization. As the President said when we announced our proposal, the bill "will create tens of thousands of jobs for our people, help move people from welfare to work, protect our air and water, and improve our highway safety. This transportation bill literally will be our bridge into the 21st century."

NEXTEA, as far-reaching as it is, was not created in a vacuum: it carries forward many of ISTEA's principles and policies.

Before ISTEA, the different transportation modes were not viewed as part of an interrelated whole serving vital national interests, nor were transportation's impacts on other concerns, such as the health of our environment or the condition of our cities, the subject of enough consideration.

ISTEA changed all of that. Beginning with the first word of its title, "Intermodal," it signaled a change in how the federal government viewed surface transportation and a redefinition of its role in a partnership to improve mobility.

ISTEA emphasized an integrated approach to transportation planning and programming, looking at the different forms of transportation as parts of an interconnected network and bringing together many constituencies and interests which had not previously been part of these decision-making processes.

ISTEA began to streamline federal administrative processes, simplifying requirements and removing layers of oversight and eliminating many reporting mandates.

ISTEA revamped the statewide and metropolitan planning procedures and required that a broad range of transportation's impacts, such as those on air and water quality, be analyzed and, in many cases, actively mitigated through initiatives such as the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Together with cleaner vehicles and fuels, programs such as CMAQ have helped to improve air quality. In Rhode Island, CMAQ has supported incident and congestion management projects, a transportation operations center, and inspection and maintenance program planning and testing.

In viewing transportation as a means, and not as an end in itself, ISTEA enabled state and local officials to set their priorities based not on what kinds of funding might be available but rather on what types of projects would best meet the mobility needs of individual communities and

regions. As you, Mr. Chairman, have noted before, we perhaps should view the resources of the Highway Trust Fund in the same manner: not as a way to meet highway needs, but as a way to meet *transportation* needs.

This emphasis on intermodalism was furthered by ISTEA's expansion of states' abilities to transfer funds between programs and among transportation modes. For instance, ISTEA funds were used to help support intermodal improvements to the T. F. Green Airport Terminal in Warwick.

Even as ISTEA changed how transportation projects and initiatives are selected, it also transformed how they are designed, funded, and built. Improvements in design and engineering have enhanced quality. Innovative contracting is beginning to cut construction costs, accelerate project implementation, and enhance value.

New materials developed under ISTEA-authorized research programs, such as high-performance concrete and Superpave asphalt, are also increasing the useful life span of our infrastructure and reducing long-term replacement costs. I understand that the Rhode Island State Department of Transportation will begin using Superpave components next year, and we look forward to seeing its benefits as it is fully phased in.

Experimental provisions within ISTEA have made possible innovative financing, which cuts red tape to move projects ahead faster and leverages federal funding with private and nontraditional public sector resources.

The President's Partnership for Transportation Investment, which used ISTEA's experimental provisions for such strategies as toll credits for state matching funds and federal reimbursement of bond financing costs, has advanced 74 projects in 31 states with a construction value of more than \$4.5 billion, including more than a billion dollars in new capital investment directly attributable to this program. Many of these projects are progressing to construction an average of two years ahead of schedule.

For example, in Rhode Island a third track dedicated to freight service will be added to the Amtrak corridor from the Massachusetts state line to the Quonset-Davisville area. Using a cash-flow technique known as advance construction, this \$115 million project will be completed a decade earlier than under conventional financing. The project will directly benefit both Amtrak passengers and freight shippers, who will see fewer delays, and indirectly benefit travelers and commercial vehicle operators on I-95, who will see less congestion.

ISTEA recognized that new priorities and new ways of doing business can best be encouraged by ensuring that the funding provided to support them is adequate. Towards this end, ISTEA increased overall federal transportation funding authorizations. President Clinton has worked with Congress to make the most of those higher authorizations, raising infrastructure investment by more than 20 percent, to an average of more than \$25 billion annually over the past four years.

Nationally, that increased funding has helped to stabilize or improve many indicators of highway conditions and performance. The condition of highway pavement, which had been deteriorating, has stabilized, and the number of deficient bridges has decreased by nearly 17,000 since President Clinton took office. We have kept pace with our transportation system's maintenance requirements and stopped its deterioration.

Mass transit investment also has increased, enabling us to purchase nearly 26,000 new buses and nearly 600 new rail cars for state and local transit agencies. We also have helped to

construct more than 100 miles of new transit lines serving more than 100 new stations. Transit speeds have improved by an average of about 10 percent.

In Rhode Island, this funding is making possible major improvements such as the \$250 million relocation of I-95 along the Providence River Hurricane Barrier, a project which would free up 23 acres of land in the downtown. I understand that the Rhode Island Department of Transportation is exploring a public-private partnership to help finance, design, and build this project, and we look forward to cooperating with them to leverage public sector resources and reduce the cost to the taxpayers.

ISTEA's greater programmatic flexibility also has enabled funding to be transferred to transit and other urban priorities. Over \$3 billion of flexible highway funding was used during the life of ISTEA for high-priority transit projects, increasing overall transit funding under ISTEA to more than \$5 billion in fiscal year 1995 alone.

The Rhode Island Public Transportation Authority (RIPTA) used \$10 million of these flexible funds to fund operating needs during fiscal years 1997 and 1998, avoiding possible service cuts. In addition, ISTEA funds have enabled RIPTA to initiate new services in Newport and at the University of Rhode Island, and to purchase and operate low-polluting electric buses in Providence.

Although record levels of funding have gone to transit and to such alternatives as bicycle and pedestrian programs in urban areas such as Providence, a substantial portion of ISTEA funding has continued to be used to maintain our highways, the backbone of travel in much of the nation.

In fact, from 1993 to 1995 54 percent of funding from the highway account (as opposed to the transit account) went to system maintenance, compared to just half that, 27 percent, for capacity expansion. The balance of 19 percent was devoted to safety programs, to environmental and enhancement initiatives, or was transferred to transit.

ISTEA's legacy, then, is one of meeting the transportation challenges of the 1990s through new emphases and new strategies without neglecting traditional concerns. As we approach the 21st century and demands brought about by such varied factors as our economy's increasing globalization and our population's changing demographics, we want to build on ISTEA's successes.

After you honored me with your vote for my confirmation as Secretary of Transportation, Mr. Chairman, I pledged at my swearing-in to pursue three goals. First, to continue making safety our number-one priority. Second, to invest in our infrastructure to ensure that America's transportation system meets the needs and desires of the American people in the 21st century. Third, to use a common-sense approach to running the Department so that it works better and costs less. With NEXTEA, we are moving to achieve all three goals.

This builds on the effort begun two years ago, when we first started to consider what form ISTEA's successor should take. We began an extensive process of outreach to our constituents which included major regional forums, including one in Providence last September, and scores of other meetings involving thousands of attendees from state and local governments, the transportation industry, other interested groups such as freight shippers and environmentalists, and the general public.

Overwhelmingly, the message we heard was that ISTEA has been a success, and that we should continue the many federal programs that are working, refine those that have not yet fully

realized their promise, and create new initiatives to meet the challenges of the new century. We believe that NEXTEA does all of these things.

It would increase overall federal surface transportation funding authorizations by 11 percent, from \$157 billion during the past six years to \$175 billion for fiscal years 1998-2003, a level of funding consistent with our transportation system's requirements and the need to balance the budget during that same period.

By eliminating certain categories of spending, NEXTEA provides a 30 percent increase in core highway programs, such as those for Interstate Maintenance and the National Highway System. It also includes a 17 percent increase for transit major capital investments.

Mass transit capital investment has been redefined to include preventive maintenance. That is consistent with the approach taken with federally-aided highways, and would enable local transit operators with the flexibility to decide whether to prolong the life of existing assets, or to purchase new vehicles, facilities, or equipment.

If Congress funds NEXTEA at the levels we have proposed, it would mean nearly \$710 million for Rhode Island over the next six years in formula-based funding alone. In fact, 49 of the 50 states would receive more funding under NEXTEA than under ISTEA. (The sole exception, Massachusetts, received unsustainably high levels of funding under ISTEA to support construction of Boston's Central Artery-Third Harbor Tunnel project.)

Such funding also could be directed to urban priorities because of increases in the flexible Surface Transportation Program and because Amtrak, intercity public rail terminals, and projects to improve access to public ports would be made eligible for funding.

This funding and the projects it would support could help to reduce the \$50 billion a year that urban congestion costs commuters and freight shippers. There is also an even more direct economic benefit: the construction and other work which would be generated by this plan could support an estimated one million jobs over the next six years, including 4,800 jobs here in Rhode Island.

NEXTEA would provide direct capital and operating assistance to Amtrak, including funding to continue improvements to the Boston-to-Washington Northeast Corridor. \$4.766 billion would be authorized for the years 1998-2003. NEXTEA also would increase states' ability to use Surface Transportation Program, National Highway System, or transit funds for intercity services.

Separately, NEXTEA would continue to fund research and development of next-generation high-speed rail technologies. This continuing research would build on Amtrak's introduction of high-speed service between Boston and Washington beginning in 1999. As you know, the electrification work needed to make this service possible between Boston and New Haven began in July 1996, and is well underway.

NEXTEA also sustains the federal commitment to Intelligent Transportation Systems (ITS), which apply advanced information and communications technologies to transportation through systems available today such as ramp meters and synchronized traffic lights, and through technologies which could be available tomorrow, such as intelligent vehicles incorporating advanced collision avoidance systems and other systems now under development.

In metropolitan areas, these technologies can cut by 35 percent the cost of providing the highway capacity we need over the next decade. These technologies also can improve safety: if all vehicles were equipped with just one of three primary ITS crash avoidance systems -- rear-end,

roadway departure, and lane change/merge -- we could prevent one out of every six crashes, more than a million a year.

NEXTEA would support ITS research and deployment through standards creation, training, and technology transfer. It also would fund work in collision avoidance and vehicle control systems to reduce crashes. We have proposed \$678 million over the next six years for such initiatives.

We also have proposed a six-year, \$600 million incentive program to promote the integrated deployment of ITS technologies that are technically feasible and highly cost-effective.

Safety, Mr. Chairman, cannot be emphasized enough. Our transportation system cannot only be about moving people and products efficiently, as important as that is to our prosperity: it must also be about enabling people and products to travel safely. Travel is safer than it was at the beginning of the decade, but as traffic increases, so does the possibility of more highway crashes, with tragic results for American families and a cost to our economy of more than \$150 billion annually.

ISTEA has helped to make travel safer, supporting programs to prevent drunk driving and to raise safety belt use. In Rhode Island, the fatality rate has been cut nearly in half in just a decade, to a current level of one fatality per hundred million miles traveled, 40 percent below the national average. The state is now considering legislation to strengthen safety belt use and anti-drunk driving laws, initiatives we welcome and support.

The President's proposal would increase funding authorizations for the National Highway Traffic Safety Administration's safety programs by more than 25 percent, and by supporting new programs targeted to the biggest safety payoffs: combating drunk and drugged driving and increasing proper use of safety belts and child restraints.

NEXTEA also would enable Rhode Island to continue such effective initiatives as the "Cops in Shops" program, through which state and local police enforce the ban on liquor sales to minors.

It also would focus on developing and promoting new ways to improve safety through partnerships, such as the Greater Providence Safe Communities Network, which supports such activities as the Buckle-Up Hotline, a trauma registry, and an emergency medical services project in Providence's Hispanic community.

Although we are still reviewing the new study of pedestrian safety by the Surface Transportation Policy Project and the Environmental Working Group, we agree that this is a real concern. Through NEXTEA and through other programs, we want to continue the expanded emphasis we have placed on pedestrian safety through such initiatives as the Partnership for a Walkable America. For instance, we want to sustain our support of pedestrian and bicycle improvements, which can enhance safety. Under ISTEA, our funding of these programs has risen from \$4 million annually to about \$160 million a year.

X (Mr. Chairman, last week President Clinton submitted a proposal to Congress entitled the "Surface Transportation Safety Act of 1997.") Although it is not the focus of my testimony today, I want to emphasize that this proposal is an integral part of our overall initiative to improve America's surface transportation system. It includes provisions to encourage states to adopt "primary" safety belt use enforcement laws, provisions to improve the safety of motor carriers, food shipments, and hazardous materials transport, and initiatives to enhance the safety of pipelines, railroads, and mass transit systems. We see these additional titles as an integral part of the safety proposals included in NEXTEA.

I want to note that, while safety must always be our foremost concern, we believe we can make our roads safer without unnecessarily compromising roadside aesthetics and the condition of adjoining landscapes, and we are committed to working with states and localities to do this whenever feasible.

NEXTEA enables us to do this through such initiatives as those to remove highway safety hazards and to eliminate highway-rail grade crossings. Funding nationally for these efforts, which also include improved intersections, signs, and other enhancements, will increase from \$445 million annually under ISTEA to \$575 million by 2003.

Our commitment to protecting the environment is seen throughout NEXTEA. As with highway safety, more traffic challenges the progress we have made. More travel could dilute the progress made through cleaner cars, fuels, and programs such as CMAQ. That is why we have to continue, and even expand, the efforts that have brought us this far. NEXTEA increases by 30 percent funding for CMAQ to help communities use various transportation initiatives to clean up their air.

NEXTEA also sustains investment in bicycle paths, scenic byways, recreational trails, and other programs that cost relatively little but which greatly improve the quality of our lives. For example, last year the Merritt Parkway and State Route 169 in Connecticut were designated as National Scenic Byways, and Rhode Island has been active in making plans to preserve the integrity of its scenic routes.

ISTEA's Transportation Enhancements program is supporting the Cliff Walk restoration in Newport, train station improvements in Kingston, Westerly, and Woonsocket, and the Blackstone River Bikeway Access project, initiatives which are relatively low in cost but high in benefits.

The President's plan also addresses other national priorities. It would help to reduce the barriers faced by those moving from welfare rolls to payrolls by encouraging affordable transportation to jobs, training, and support services such as child care, creating opportunity for many thousands of Americans. That is important, since only about six percent of welfare recipients own cars, two-thirds of new jobs are in the suburbs, and mass transit does not always serve these areas.

NEXTEA is intended to help bridge this gap between people and jobs. It includes a six-year, \$600 million program of flexible, innovative alternatives, such as vanpools, to get people to where the jobs are, whether they are in suburbs, in cities, or in rural areas.

Since transportation and construction jobs are among America's best-paying, we want to open opportunities in these fields for welfare recipients and other disadvantaged people. NEXTEA would increase incentives for states and localities to provide job training in conjunction with federally-funded technology and construction projects, and to enable them to offer hiring preferences to welfare recipients and residents of Empowerment Zones and Enterprise Communities. We want to build on the efforts of states such as Rhode Island, in which two percent of highway construction workers last year were enrolled in special apprenticeship and training programs.

Under NEXTEA, we also propose to continue providing opportunities for small businesses and for women and minority entrepreneurs. We are encouraged that 12 percent of the federal funds expended in Rhode Island on highway contracts last year went to such firms.

NEXTEA also continues the commitment to common sense that President Clinton and Vice President Gore have brought to government operations over the past several years.

NEXTEA proposes more common-sense ideas: focusing on results, not on process; cutting red tape and streamlining requirements; promoting innovation, such as more new ways to pay for roads and transit systems; and giving state and local officials even greater flexibility to target federal funds to projects which best meet community needs.

NEXTEA expands our innovative financing program. For example, it includes \$900 million in seed money for state infrastructure banks, which leverage private and other nonfederal resources, and opens this program up to all states.

I know that Rhode Island has applied to use seed money from this program and from its regular federal-aid apportionment to establish a \$20 million bank, and we are currently evaluating its application together with others we have received.

NEXTEA also dedicates \$600 million for an Infrastructure Credit Enhancement Program to help leverage nonfederal resources for projects of national significance which individual states cannot afford, such as interstate trade corridors. That responds to states' needs in handling the increased traffic from NAFTA and other agreements to promote trade.

NEXTEA also makes the transportation planning process simpler and smoother for our state and local partners. It would streamline the 23 statewide and 16 metropolitan planning factors into seven broad goals that states and localities can use as appropriate to guide their planning. It would emphasize system operations and management so that planning considers a complete range of transportation options, including intelligent transportation systems, and it would expand planning's inclusiveness by ensuring that the concerns of freight shippers are heard.

NEXTEA also continues to transform federal oversight by reducing project reporting and certification requirements. We know that we must trust our partners in state and local government and the private sector instead of burdening them with paperwork.

Finally, NEXTEA recognizes the need to replace outdated and outmoded funding apportionment factors, and has proposed Highway Trust Fund apportionment formulas that are fair and that relate well to the program's overall national objectives. Recognizing that a sudden change to the formula factors could disrupt ongoing state programs, we also have proposed certain equity adjustments to ease the transition to more accurate distribution of funds.

NEXTEA, in summary, is faithful to what we heard from our constituents: sustain ISTEA's principles, streamline its requirements, increase its flexibility, and raise its funding levels.

NEXTEA would help to give Americans what they told us they want: a transportation system that is sensitive to environmental concerns and that enables them to get to their destinations safely, conveniently, and on time.

We listened to them, and we learned, and we have produced a proposal which can take America's transportation system into the 21st century, and set our course not just for the next six years, but for the next 60.

As Presidents from Washington to Lincoln to Wilson to Eisenhower knew, transportation unifies a diverse nation, and creates opportunities for people to pursue their own vision of happiness.

President Clinton and I are proud to continue in this tradition of support for sound transportation, and look forward to working with you and your colleagues in Congress during this

very important reauthorization process. Mr. Chairman, this concludes my statement. Now, I would be pleased to answer any questions you may have.

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Total Pages: _____

LRM ID: JAB89

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Tuesday, March 18, 1997

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below

FROM: James J. Jukes (for) Assistant Director for Legislative Reference

OMB CONTACT: James A. Brown

PHONE: (202) FAX: (202)

SUBJECT: REVISED Environmental Protection Agency Testimony on
TRANSPORTATION Draft Bill on ISTEA Reauthorization

DEADLINE: 3:30 Today Tuesday, March 18, 1997

In accordance with OMB Circular A-19, OMB requests the views of your agency on the above subject before advising on its relationship to the program of the President. Please advise us if this item will affect direct spending or receipts for purposes of the "Pay-As-You-Go" provisions of Title XIII of the Omnibus Budget Reconciliation Act of 1990.

COMMENTS: This is a revised version of the testimony circulated to you for comment yesterday, and reflects EPA's attempt to incorporate comments received. (Several comments were received. In many cases, several different suggestions were received on how to express the same point.) If you have policy or factual issues to raise regarding this draft, please respond by the deadline. Since this testimony must be delivered tomorrow, we will assume that you have no substantive objection to clearance if we do not hear from you by the deadline.

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TRANSPORTATION Draft Bill on ISTEA Reauthorization

**RESPONSE TO
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**TESTIMONY OF DAVID GARDINER
ASSISTANT ADMINISTRATOR FOR
POLICY, PLANNING AND EVALUATION
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE**

**SENATE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE**

MARCH 19, 1997

1. Introduction

Good morning, Chairman Warner and Members of the Committee. I am David Gardiner, Assistant Administrator of Policy, Planning and Evaluation at the U.S. Environmental Protection Agency (EPA). I am pleased to be here today with Acting Administrator Jane Garvey of the Federal Highway Administration to offer EPA's perspective on the National Economic Crossroads Transportation Efficiency Act (NEXTEA).

Transportation gives form and function to our great country; it is an inherent factor in nearly every aspect of life. Our transportation network enables us to maximize our economic potential, provides us with unprecedented amounts of personal freedom, and gives us both a figurative and literal path to the things we want in life.

It also exacts a price upon the environment. These problems manifest themselves in many forms, including: local air pollution (such as smog and particulate matter), water pollution, habitat fragmentation, and contributions to climate change. Environmental costs are real, and they impact the economy.

NEXTEA is important to the EPA because sound transportation policy is sound environmental policy. Last week, the President echoed this sentiment when he said, "Make no mistake about it, [NEXTEA] is one of the most important pieces of environmental legislation that will be considered by the Congress in the next two years. And I think it should be thought of in that way."

The EPA strongly supports this statement and the positions set forth in the Administration's bill, because it will help us fulfill our mission of providing clean air, and clean water, and protecting public health. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) recognized that the transportation sector can be used to improve public health, improve the quality of our environment, improve the economy, and improve the quality of life of

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our citizens. The continuation of the Congestion Mitigation and Air Quality Improvement and Transportation Enhancements Programs are important steps to ensuring that this happens.

Sound transportation policy is also sound economic and community policy. How and where we lay out our transportation network can have great impacts on whether downtowns and neighborhood communities prosper, whether we can safely walk across the street, or whether those without automobiles can shop, get to their place of work or to educational opportunities. EPA supports the Administration's philosophy of "local solutions to local problems". The public involvement requirement in ISTEA is one of the things that makes it so successful. It empowers the citizen to have an impact, and it needs to stay in the legislation.

ISTEA is good policy; NEXTEA preserves it. Today, I would like to talk with you about how transportation affects the environment, and then discuss how the Congestion Mitigation and Air Quality Improvement and Enhancements programs have helped improve environmental quality. I also will discuss why the flexibility and public participation opportunities created by ISTEA are so important for helping communities and EPA achieve their environmental goals.

2. Environmental Impacts of Transportation

In 1991, ISTEA acknowledged the explicit federal role in addressing the environmental impacts of transportation. I present these impacts in four categories: air quality, water and habitat quality, climate change, and solid waste.

a. Air Quality

Nationally, air quality has improved substantially, contemporaneously with strong economic growth, population growth, and increased vehicle miles traveled (VMT). EPA analysis shows that mobile source emissions, which contribute significantly to overall emissions, dropped substantially between 1986 and 1995:

- CO emissions declined 21 percent during that time period;
- NOx emissions fell 2 percent;
- ozone precursors (hydrocarbons) fell 9 percent; and,
- PM-10 emissions declined by 17 percent

These national long-term air quality improvements translate to cleaner air on the local level. When the Clean Air Act was amended in 1990, there were 140 million citizens living in 98 ozone non-attainment areas. Progress in ozone mitigation led to the redesignation of 29 of those areas. Of the remaining 69 non-attainment areas, 40 had met the first qualification for redesignation: they had not had a violation of the standard for over 3 years. Nearly one third of the affected citizens now live in areas that meet the ozone standard. PM-10 non-attainment areas have decreased only slightly, from 83 to 81. However, 35 PM-10 non-attainment areas have been meeting the standard and have not yet been redesignated. In 1990, there were 42 CO non-

attainment areas; in 1995, 34 were meeting the NAAQS for CO.

Americans continue to increase their travel activity, and this has important implications for air quality. In 1970, the Nation logged an estimated 1.1 trillion VMT. By the end of 1995, the VMT total had more than doubled to just over 2.4 trillion miles annually. Between 1983 and 1993, motorists increased their VMT more than 39 percent.

In addition to the national increase, it is evident that vehicle travel in some areas of the nation has out paced others, with some seeing a doubling of VMT in 10 years or less. Generally, there has been a substantial and growing divergence between urban and rural VMT growth. This urban-rural gap has continued to widen over the last 20 years, largely because of continued metropolitan development incorporating both the expansion of urban boundaries and the rapid growth in suburb-to-suburb commuting. For the period described above—1983 to 1993—urban VMT increased nearly 49 percent, while corresponding rural VMT growth was less than 27 percent.

To date, ISTEA and the Clean Air Act has helped states and localities across the country make great strides in mitigating mobile source pollution. These reductions have been achieved by reducing emissions at the tailpipe through technological advances, cleaner fuels, and better inspection/maintenance facilities. However, future emission trends are not as encouraging, because projected increases in VMT will overtake anticipated reductions from technological advances¹:

- CO emissions from on-road vehicles are predicted to decline from 48,874 thousand short tons in 1996 to 44,525 thousand short tons in 2002. By 2010, CO emissions are predicted to increase to 46,749 thousand short tons.
- NOx emissions from on-road vehicles are predicted to decline from 7,041 thousand short tons in 1996 to 6,281 thousand short tons by 2005. By 2010, NOx emissions are expected to increase to 6,495 thousand short tons.
- Volatile Organic Compound (VOC) emissions from on-road vehicles are predicted to decline from 5,147 thousand short tons in 1996 to 4,578 thousand short tons in 2005. By 2010, VOC emissions are expected to increase to 4,726 thousand short tons.

Technological improvements in vehicle technology and fuels have kept emission trends on a downward path for the past twenty-five years. Proposed programs to reduce motor vehicle emissions, like Tier II standards, National Low Emission Vehicle programs, and improved vehicle durability/maintenance could make further improvements in air quality. Strategies that reduce VMT also will be important to preserve our air quality improvements, and protect public health and the environment.

¹ EPA models future emission levels that incorporate emission control requirements of the Clean Air Act Amendments (CAAA). The control factors capture changes in control technologies mandated by the CAAA, but may not account for new technologies and increased efficiency of processes which are not required.

b. Water and Habitat Quality

Transportation also has great impacts upon our soils and lands, upon our water and wetlands, and upon our flora and fauna. Water quality is generally affected by transportation in three ways: run-off from new construction and existing highways, air deposition, and wetland loss.

Runoff Runoff pollution is that associated with rainwater or melting snow that washes off highway pavements and bridge decks and other impervious surfaces. As it flows over these surfaces, the water picks up dust and dirt, rubber and metal deposits from tire and engine wear, oil and grease that has dripped onto the pavement, pesticides and fertilizers, antifreeze, and debris. These contaminants as well as those associated with highway construction and maintenance are washed from highways and bridges and carried into our lakes, rivers, streams, and oceans.

In the snowbelt, road salts can be a major pollutant in both urban and rural areas. Melting snow runoff containing deicing salts can produce high sodium and chloride concentrations in ponds, lakes, and bays causing fish kills and changes to water chemistry. Road salts can also contribute to damage roadside vegetation to cause erosion. Erosion produces sedimentation which can choke aquatic organisms in receiving waters.

Air Deposition The transportation sector generates NO_x, which reacts in the atmosphere to become an acid, thus contributing to acidic deposition. EPA's Chesapeake Bay Program reports that acidic deposition from transportation accounts for approximately 9% of all nitrogen in the Bay. Nitrogen (and other pollutants) directly affect the vitality of the Bay.

Wetlands Prior improvements to the nation's transportation infrastructure have contributed to the loss and degradation of wetlands and other habitats. Wetlands mitigation provisions within ISTEA have provided the resources and flexibility needed to offset wetlands losses resulting from transportation projects. For example, ISTEA has provided support for wetlands mitigation banking activities throughout the country. Mitigation banking increases the ecological benefits of wetlands compensatory mitigation efforts, while also facilitating the permitting of highway projects. Ensuring that ISTEA continues to provide the resources and flexibility needed to offset unavoidable impacts to wetlands will help us to achieve the Administration's interim goal of no overall net loss of the nation's remaining wetlands and the long-term goal of increasing the quality and quantity of the nation's wetlands resource base.

c. Climate Change

Transportation accounted for nearly one-third of all anthropogenic greenhouse gas emissions from the U.S. in 1990 and the transportation sector is expected to have the fastest growth in greenhouse gas emissions of any part of the US economy during this decade. This growth is the result of two trends; the average fuel economy of the new personal vehicle fleet has decreased

since 1988, and the number of miles driven by Americans continues to rise. The drop in fuel economy is largely a result of a shift toward larger vehicles, such as sport utility vehicles, that have lower gas mileage than cars. While some vehicle models may be getting better mileage over time, as a nation we are buying more of the less efficient models. The causes of the increase in number of miles driven are more complicated and include population shifts to urban fringes.

Global Climate Change has emerged as an important environmental concern. An international consortium of scientists has recently concluded that human-induced climate change has begun. The 1996 report of the Intergovernmental Panel on Global Climate Change expressed a scientific consensus that man-made "greenhouse gases"—including carbon dioxide, chlorofluorocarbons, and methane—are building up in the Earth's atmosphere, and that the temperature of the atmosphere is increasing as a result. This rise in temperature is referred to as global climate change, global warming, or the greenhouse effect. Although the predicted increase in average global temperature may not seem like much—an increase between 1.8 and 6.3 degrees Fahrenheit is predicted—scientists believe that it will be enough to cause sea levels to rise, although the precise timing of when this might happen is unclear. Changes in temperature and rainfall in particular regions are more difficult to predict and the impact on different ecosystems remains uncertain. Nevertheless, agriculture, aquaculture, and plants and animals will have to adapt or move as the climates and habitats that support them change.

3. NEXTEA and Environmental Protection

a. Congestion Mitigation Air Quality Improvement Program

Air quality control under ISTEA and the Clean Air Act have been an environmental success story. Pollution from vehicles has been substantially reduced. Many areas, however, still face substantial challenges, and will continue to need the type of flexible support provided by CMAQ. Funding under the CMAQ program, unlike many other Federal-aid highway programs, is not limited to traditional highway uses, and the program has funded many innovative projects such as I/M programs aimed at reducing emissions and other programs focusing on vehicles and fuels. One of CMAQ's successes has been to open up the transportation planning process to allow projects to compete on their air-quality merits, an important ISTEA goal. The program also has been successful at empowering Metropolitan Planning Organizations (MPOs) and furthering the ISTEA goal of allowing local decision makers to select projects. Finally, the CMAQ program has invited new players into the planning process.

Funding Under NEXTEA, new air quality nonattainment areas, resulting from the proposed PM and ozone NAAQS, would be eligible for money from the Congestion Mitigation and Air Quality Program upon submission of a SIP to EPA. The President's FY 1998 budget would increase CMAQ funding to \$1.3 billion per year from \$1.0 billion in FY 1997. Additional money will be transferred to CMAQ from the Surface Transportation Program when new nonattainment areas become eligible for CMAQ money, as necessary, to ensure no state will lose CMAQ funds.

Transit improvement projects have been the recipient of the largest share of CMAQ funding since the start of the program, accounting for approximately 47 percent of all obligations between 1992 and 1995. As of October 1995, more than \$1.7 billion had been transferred for transit-related air quality improvement projects. Highway traffic flow improvement projects, specifically identified as Traffic Control Measures (TCMs) in the CAA if they reduce emissions, have accounted for 31 percent of CMAQ resources. Transit and highway traffic flow improvements together continue to receive about 75 percent of available CMAQ funding. On a lesser scale, funding for pedestrian/bicycle, shared-ride, and other less traditional TCM-type projects generally ranges between 10 and 15 percent of CMAQ funding obligations.

Traffic Control Measures Most of the emissions reductions achieved to date have been through the CAA's long-term focus on reducing tailpipe and evaporative emissions, and clean fuels program. As increasingly stricter tailpipe standards have been put in place, automakers have responded by producing lower emission vehicles that can meet the standard. As VMT growth reduces outpaces existing tailpipe controls, CMAQ provides communities the flexibility rely more on TCMs to help reduce VMT.

Although TCMs may not yield, in the short run, as large an air quality benefit as some of the more effective mobile source strategies, there are ample other reasons to fund them. Most notably, congestion continues to strangle many metropolitan areas and without TCMs to increase the supply of transportation alternatives and demand management strategies like pricing, these areas have few ways to address their growing congestion mitigation needs. Hence, programs like CMAQ are needed for a variety of reasons. The CMAQ program has been instrumental in furthering the empowerment of MPOs, a key goal of ISTEA. It also has invited local citizens and officials into the transportation planning process.

The effectiveness of TCMs is directly linked to the low-density development pattern prevalent throughout the United States, which virtually necessitates automobile ownership and use. TCMs that increase the supply of transportation alternatives must address the geographically diverse origins and destinations that low-density development fosters. A focus that has gained some acceptance within the transportation and air quality communities, is to increase the accessibility of alternative to automobiles such as transit, bicycling, or walking.

CMAQ Success Stories The CMAQ program already has funded hundreds of innovative projects. These are examples of quality planning efforts that are environmentally friendly and contribute to the social and economic needs of the community. As I have said before, good environmental policy is good economic policy. Since economic development is of tantamount importance to most cities, I must point out some of the many cases where these programs have been successfully used.

HOP Shuttle - Boulder, Colorado, designed the HOP Shuttle Service, named for the rabbit painted on the buses, to increase mobility and to reduce the number of single occupant vehicle trips to work, shopping, and entertainment. Since its launching in 1994, the HOP's clean-

burning propane bus service has exceeded all expectations, carrying an average of 4,300 passengers a day (more than twice the number originally projected). Surveyed HOP riders have given the shuttle the high mark of 9 on a scale of 10.

Carrying 1.1 million riders a year, the HOP is clearly reducing air pollution through decreased VMT, while also increasing transportation choices and quality of life. 50 percent of surveyed riders are reducing their drive-alone travel through HOP, 16 percent of riders would have driven alone for that trip had HOP not been available, and 7 percent of riders would not have made the trip without HOP. With 20 percent of HOP trips being recreational, merchants strongly support the service. The HOP was funded in part with \$1,400,000 in CMAQ money.

Other clean fuel bus programs receiving CMAQ funding have been implemented in Boise, Idaho; Milwaukee, Wisconsin; and Cleveland, Ohio.

Glendale Parking Management - In a public-private partnership with the Glendale Transportation Management Associates, Glendale, California, two private companies have implemented a 3-year demonstration program to reduce the number of employees driving to work alone. The companies reward employees who choose alternatives to driving alone—carpools, vanpools, walking, bicycling, and transit. The program combines a graduated parking charge for all employees with incentives such as prizes, awards, and—one of the most valued incentives—the Guaranteed Ride Home Program. As evidence of its success, this project earned the Federal Highway's 1995 Environmental Excellence Award in the CMAQ Program category.

Freeway Service Patrol—The Freeway Service Patrol, managed by the Metropolitan Transportation Commission (MTC), the FSP alleviates long delays caused by disabled vehicles that account for 50 percent of the traffic congestion in the San Francisco metropolitan area. A fleet of 52 FSP trucks patrols more than 200 miles of the Bay Area's most congested freeways, clearing over 9,000 incidents every month. Aided by the latest communications technology, the FSP truck drivers rescue stranded motorists. By alleviating start-and-stop travel and vehicle idling due to traffic jams, the FSP also has decreased overall fuel consumption and helped reduce harmful air pollution from motor vehicles.

b. Enhancements Program

The Enhancements Program provides funding for activities that increase transportation options. Enhancements are designed to boost local economies, promote and increase multi-modal and overall non-motorized travel, and protect the environment. Enhancements funds may be used for ten different kinds of projects. They are: bicycle and pedestrian facilities; acquisition of scenic or historic sights; archeological planning and research; scenic or historic highway programs, landscaping and scenic beautification; historic preservation; preservation of abandoned railway corridors; control and removal of outdoor advertising; mitigation of water pollution due to highway runoff, and rehabilitation and operation of historic transportation facilities. Nation-wide,

\$2.4 billion was made available over the 6 year life of ISTEA (1992 - 1997) for the Enhancements Program.

Transportation Enhancements funding fills a vital role in mitigating the impacts of transportation and protecting the environment. Transportation is a significant source of air and water pollution, wetlands loss, habitat destruction and loss of open space. Historically, transportation planning focused more on the automobile, with less regard for alternative modes or the impacts on the community. The Enhancements Programs provides balance to those circumstances where wide roads and highways have cut off communities from their neighbors, increased traffic noise, and discouraged bicycle and pedestrian travel.

Enhancements funding has provided states and communities with the opportunity to fix the problems that are caused by traditional transportation projects. State and local transportation officials say that many enhancements-like projects would never have been undertaken without the enhancements program. Projects such as rails-to-trails, greenways, and bicycle/pedestrian paths support non-motorized transportation, provide increased mobility, provide recreational opportunities, increase economic development, clean the air, reduce non-point source water pollution, and encourage multi-modal transportation. Landscaping and historic preservation projects are popular on the local level. They provide tangible benefits which enhance livability and provide a sense of community. Historic sites often increase tourism and can act to strengthen the local economy.

The Enhancement Program Expands Transportation Alternatives and Promotes Economic Development..

The Katy Trail - This 235-mile Missouri trail traverses nine counties and adjoins 35 towns ranging in population from 60 to 60,000. These communities initially were opposed to the trail, fearing an increase in vandalism from the users of the trail. Instead, restaurants, bed-and-breakfasts, wineries, bicycle rental shops, antique dealers, and campgrounds all opened to meet visitor needs. A user survey on the trail's western half showed that trail visitors generated an estimated \$3 million in local revenue.

Accommodating Pedestrians - Naples, FL, installed a network of sidewalks to make it quicker and safer to walk downtown. The city has a street system which did not originally include sidewalks. ISTEA Enhancement funds will pay for the design and construction of walking paths to link neighborhoods with recreation and the town center.

Enhanced Suburban Transit - The Minnesota Valley Transit Administration recently constructed a suburban transit hub designed to meet the varied demands of suburban commuters. The transit hub offers convenient access to high occupancy vehicle (HOV) lanes on regional highways and features retail and office space, a day care facility, senior housing, expanded parking, and a movie theater.

The Enhancement Program Reduces Highway Runoff...

Highway runoff mitigation is one of the ten categories of activities specifically eligible to receive Transportation Enhancement funds. Since 1992, nearly 100 runoff projects with a combined cost of more than \$20 million have been funded by the Enhancements Program. In order to qualify as an enhancement, each of these projects must address issues which are beyond the scope of customary construction mitigation efforts, i.e., required runoff control measures cannot be funded by the Enhancements Program.

Cucumber Creek, Oklahoma, Pollution Mitigation - Mitigation efforts recently were completed in southeastern Oklahoma to correct the harmful effects of runoff from State Highway 259. Water quality in Cucumber Creek, which is located near the highway right-of-way, was degrading due to runoff from the roadway. This contamination threatened the viability of several rare species of plants and animals.

In order to remedy the runoff problems and preserve the integrity of Cucumber Creek, the state of Oklahoma used approximately \$65,000 in enhancement funds to regrade the land between the highway and stream and expand the Cucumber Creek Preserve by 400 acres. Because runoff is directed to less fragile areas, further pollution of habitat will be reduced. The regrading of the highway right-of-way also will prevent further erosion of the land on the sides of the roadway.

3. Parking Cashout

NEXTEA includes important policy initiatives to reduce the threat of climate change. One of these, the change in the tax treatment of commuter benefits, clearly demonstrates that there are opportunities to align the sometimes competing objectives of environmental protection and transportation mobility. Free parking at work is today offered to 90 percent of the American workforce. In part, this is because the Internal Revenue Code prevents employers from offering their employees a choice between tax-exempt parking, other tax-exempt commute benefits, or taxable cash. NEXTEA changes that. Employees who do not need or want their free parking spaces and would prefer to commute by some other means than driving, but accept them because they are often the only commute benefit offered, will be able to convert their parking spaces to taxable cash at no cost to their employer. Employers will cease to pay for parking their employees no longer use. Fewer automobile commuters means better air quality, fewer greenhouse gas emissions to the atmosphere, and less traffic congestion. This is smart policy that is good for transportation mobility and for the environment.

4. Public Involvement

The Clean Air Act requires the evaluation of environmental concerns in transportation planning. NEXTEA continues to provide states with the tools to implement this requirement. In the past, citizens and local officials did not always have enough say in local transportation planning. ISTEA puts the citizens and local officials in the planning process. With the flexibility of

ISTEA funding, the "community vision" can become the community reality.

ISTEA has provided the funds and the flexibility to more easily make transportation networks efficient and environmentally sound. ISTEA, by requiring public input on transportation planning, supports local citizens and officials make their own choices and have the funds to realize their community visions. Some states have created decentralized processes in which the state share some aspects of its traditional control helping to empower MPOs and local governments. This empowerment comes in the form of programming control over the spending of federal funds in the MPO's planning area.

I'd like to mention a few examples of these decisions to show that increased public participation can result in good planning and better environmental outcomes.

Albany's New Visions - Through the "New Visions" initiative, the Albany, NY, MPO has started calculating and using the costs of traffic jams, environmental factors, and larger economic impacts in transportation projects. This comprehensive account is almost unprecedented, and includes costs and benefits not traditionally included in the transportation planning process.

Florida - Florida's state DOT has developed a close working relationship with MPOs, air quality agencies, and the public by involving these parties in making decisions about a variety of transportation investments. Florida's approach is partially attributable to the state's decentralized DOT structure. District offices of the state DOT work closely with local governments and MPOs, providing a good mix of local, state, and public input in the project selection process.

Bottom-up Planning - California and Washington state have created well-defined "bottom-up" approaches to the selection of ISTEA's enhancement funds. Selection criteria are set by the state and MPOs, and corresponding agencies in non-urbanized areas evaluate proposed projects in their jurisdiction and send a prioritized list to the state. Although in both states, primary decision-making authority remains at the state level, the states have largely honored the recommendations by the MPOs.

5. Flexibility

Transportation funding before ISTEA was generally more rigid allowing less flexibility and creativity for finding alternatives to transportation problems. ISTEA and NEXTEA differ in major ways from transportation policy of the past. Flexibility allows for the implementation of local solutions to local problems as determined by local citizens and officials. Flexible funding encourages creative solutions that promote sustainable transportation, clean air, economic development, and meet the mobility needs of local citizens. Funds previously earmarked solely for highway projects now can be used by state and local officials to pursue multiple options for making their transportation systems more effective and sustainable.

The following are a few examples of how state and local governments have taken

advantage of flexible funding to support economically and environmentally sensible projects.

Bridge Preservation - In Vermont, most bridges were built after a 1927 flood, and they are now reaching the end of their useful life. Rather than replacing them all with a standard new bridge, the state has used ISTEA's new flexibility and funding provisions to rehabilitate or replace historic bridges on a case-by-case basis. Flexible funding permits investments that save money.

Train Station Revitalization - In Greensburg, PA, ISTEA Enhancements funds are being used to renovate a historic train station on Amtrak's Chicago-to-New York route. The redevelopment will help revitalize downtown Greensburg, and Amtrak predicts tripling ridership.

ISTEA Flexibility Encourages Innovation for Addressing Freight Emissions..

Flexibility in ISTEA also allows us to grapple with emerging problems, such as emissions from freight transportation, in cheaper and smarter ways. Freight transportation moves the nation's commodities to U.S. markets, uses roughly a fifth of U.S. transportation energy, and produces roughly 30 percent of the mobile source sector's air emissions of NOx, according to EPA estimates. The corresponding percentages for particulate matter specifically from freight are not available, but are known to be even larger. ISTEA began to emphasize the importance of freight transportation.

EPA recognizes and supports the steps already taken by the freight industry to promote and achieve industry productivity and environmental benefits:

- Partnerships between truck and rail companies are on the rise, as many trucking companies are finding it more profitable to facilitate long hauls rather than make the entire trip themselves;
- Truck-rail transfer stations have sprung up across the country, with truck companies serving the shipper and receiver and railroads providing long-distance movement to and from the transfer points; and,
- Warehouse siting strategies and freight distribution technology are decreasing fuel use and, therefore, costs.

Several successful examples of intermodal freight transfer projects merit particular attention. The city of Auburn, Maine, has used ISTEA CMAQ dollars to develop a state-of-the-art project that includes track improvements, new parking and container storage, and a weighing and freight control operations center. Auburn, an air quality nonattainment area, has the long-term goal of becoming a multi-modal transportation center. The new facility reduces long-haul truck traffic on area highways, decreasing vehicle emissions both in the Auburn area and along regional highway routes.

Auburn's project, which is referred to as the "Intermodal Freight Transfer Facility," has provided an economic boost to the area. With the conversion of freight from long-haul trucking to rail, a multitude of short-haul trucking companies have moved to Auburn to serve short trips from rail facilities to other destinations. The increase in economic activity has led to added competition for local warehouse space. Auburn has also attracted producers of goods that require incoming raw and bulk goods and the outgoing freight capacity of the facility. A number of transportation-related businesses and thus jobs have grown along Auburn's main freight corridor. On-going plans for the Facility are to provide multi-user access and grant access to the terminal to other railroads.

New York State, New York City, and the Port Authorities of New York and New Jersey are using an innovative water freight service across the Hudson River to relieve congestion on area bridges and roads, reduce air pollution, and provide a more economic mode of transportation. With the Red Hook Barge, officials in the New York area have turned a potential congestion problem into a sustainable way to move goods.

EPA and DOT have made great strides in developing tools to aid local planners in integrating freight infrastructure and management practices with emissions control policy. Strategies for dealing with freight-related system enhancements and modal emissions rates include tradeoffs among such measures as changing terminal access or capacity, improved scheduling, and incentives for more rapid introduction of new technology or of alternative fueled vehicles, to name but a few. As these planning tools are disseminated through the funding of pilot projects and conducting of workshops in communities across the U.S., efficient and environmentally effective freight strategy options have been (and will be) implemented. The funding provided by CMAQ eases the transition to such implementation. Continued progress would be stymied without the CMAQ program.

ISTEA Flexibility Encourages Innovation for Addressing Border State Freight Transportation Issue...

The issues that have arisen with freight border traffic between the United States and Mexico is of concern to EPA. NAFTA requires the harmonization of standards for truck, bus, and rail operations, and for the transportation of hazardous materials among Canada, the United States, and Mexico. Progress has been made, but EPA wishes to emphasize the environmental stake the United States has in resolving issues to ensure that there is no degradation of air or water quality and that land use, waste disposal, and other considerations are carefully taken into account.

Coordination of cargo transfers between Mexico and the United States to minimize cases where freight carriers making return trips empty of cargo, encouraging use of those border crossing points that are currently underutilized, and increasing hours of operation at border bridges are examples of measures that reduce congestion and lower peak emissions levels. Other measures that reduce congestion through construction of new infrastructure, such as expansion of

facilities adjacent to border stations, connecting the Rio Grande Valley to the Interstate Highway System, and construction of limited access roads from Mexican factories to intermodal facilities in the United States should be viewed as opportunities to take transportation, energy, and environmental concerns into account.

ISTEA Flexibility Encourages Innovation for Addressing Brownfields...

Brownfields are abandoned, idled, or under-used industrial and commercial properties where expansion or economic redevelopment is complicated by the threat of environmental contamination. While the full extent of the brownfields problem is unknown, the United States General Accounting Office estimates that approximately 450,000 brownfields sites exist in this country, affecting virtually every community in the nation. The Administration's Brownfields Initiative is directed towards empowering states, local governments, communities, and others to work together to assess, clean up, and sustainably redevelop these sites.

Transportation issues are critical to the sustainable redevelopment of brownfields. As DOT has testified in previous hearings before this committee, transportation empowers our neighborhoods by providing access to jobs, markets, education, and health care. Both highways and transit are vital to maintaining our metropolitan areas as viable commercial centers, especially for brownfields areas where we are trying to restore hope and vitality to blighted neighborhoods.

Environmental cleanup linked to transportation projects allows the reuse of urban land with existing infrastructure and provides the access to transportation that is vital to successful community revitalization. EPA and the U.S. Department of Transportation are working together to coordinate brownfields projects with transportation policy. The importance of these efforts are reinforced by the recommendations of the President's Council on Sustainable Development that stress the links between transportation, the environment, and sustainable development.

Brownfields redevelopment benefits the national transportation system. Brownfields projects take advantage of existing infrastructure and can reduce project costs. Further, redevelopment of brownfields may reduce pressure on suburban transportation infrastructure. Finally, locating development on brownfields may reduce the need for new transportation infrastructure needed to service greenfield developments.

There are added environmental benefits from Brownfields redevelopment and infill, especially when they are located in central cities. These areas are generally more accessible via transit and non-motorized modes of transportation. Those who choose to drive to work at these locations generally will have shorter trips than when the same jobs are located at the urban fringe. Infill development, as opposed to new development on greenfield sites, can reduce total growth in VMT, reduce congestion, improve air quality, and reduce carbon emissions.

The benefits of linking brownfields redevelopment with transportation are demonstrated by transportation projects in cities such as Portland, Oregon, and Lawrence, Massachusetts. In

Portland, Oregon, ISTEA funds were used to build a road through a brownfields area, connecting a port facility with an interstate highway. The transportation project was a primary factor in opening this blighted area to restoration and reuse. The Lawrence Gateway Project used ISTEA funds to revitalize the city by restoring its historic Canal Street bridge entrance and adding a new traffic interchange. Although the transportation costs were only \$5 million, over \$167 million has been leveraged in public and private funds to give the former mill capital of the United States a brighter future. Examples like these demonstrate the flexibility that would be continued under NEXTEA.

Closing remarks

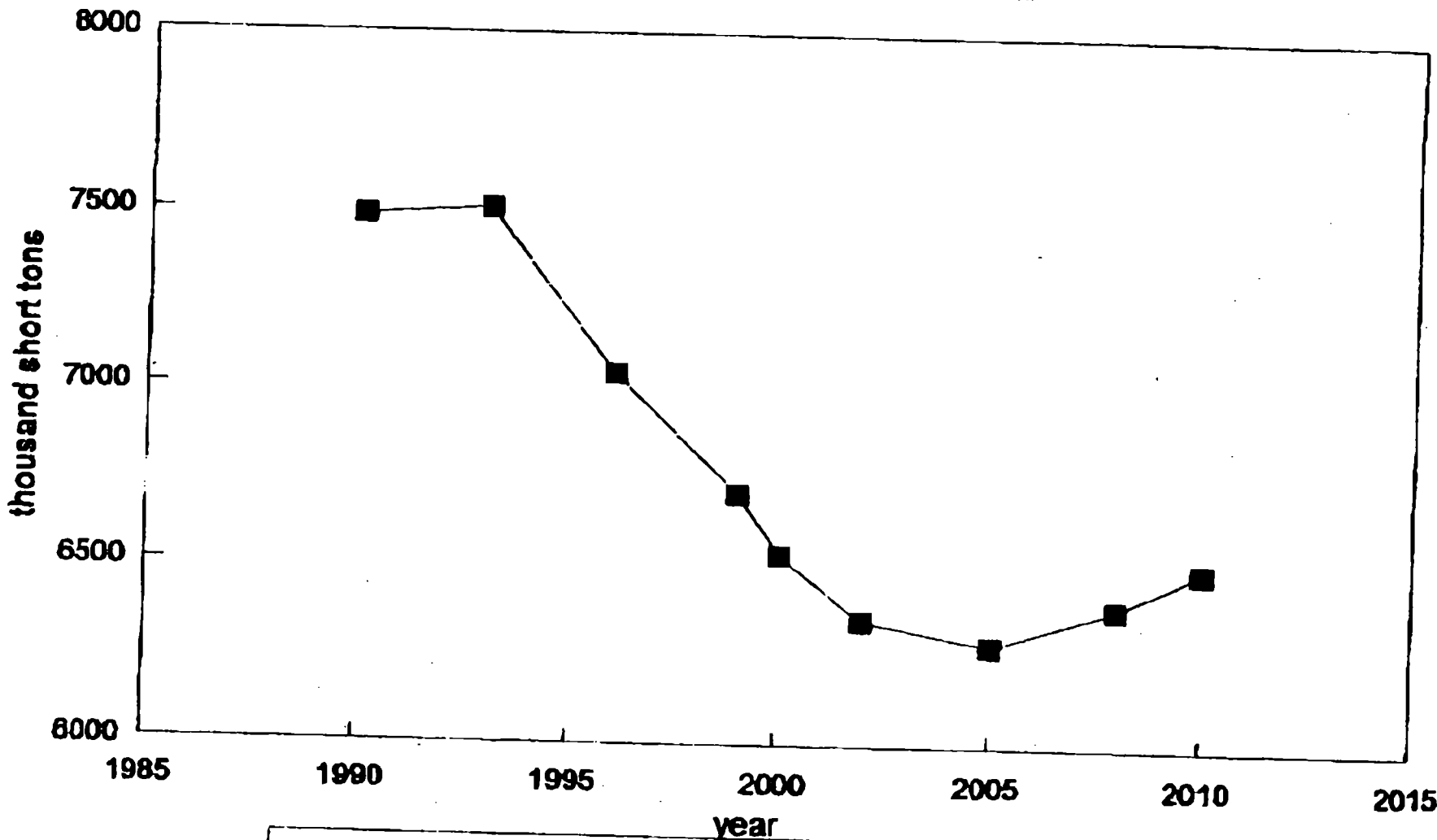
The best way to stop pollution is to find alternatives to the activity creating it. In the case of mobile source air pollution, reducing fuel consumption and VMT appears to be the most effective way to achieve results. EPA favors the continuation of the CMAQ and Enhancements programs, because they enable state and local governments to take diverse approaches to reducing air pollution, while also cleaning the water, preserving habitats, increasing system safety, improving the quality of life for their citizens, and encouraging local economic develop.

If judged solely on its ability to clean the air and enhance mobility, ISTEA is a success. When factoring in everything that ISTEA does for the environment, it is one of the most cost-effective funding bills that has ever been passed. The CMAQ and Enhancements Programs permit multiple responsibilities to be met with one law. That is good policy. That is why they should be maintained.

ISTEA has planted the seeds of progress. NEXTEA has the potential to make those seeds bloom. EPA believes that the way to do this is to support programs that stress sustainability, environmental protection, economic development, and community involvement. The structure of ISTEA encourages planners and the "person on the street" to have vision, and provide them the tools to do something about it. The CMAQ and Enhancement programs are two of these tools.

Mr. Chairman and other members of the committee, thank you for your time this morning.

Nitrogen Oxides from on-road vehicles



U.S. EPA National Air Pollutant Emission Trends, 1990-1994.

**STATEMENT OF DEPUTY SECRETARY OF TRANSPORTATION MORTIMER
DOWNEY
BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
NEW YORK, NEW YORK
APRIL 7, 1997**

Mr. Chairman, Senator Moynihan, and distinguished Members: I thank you for the opportunity to testify in behalf of reauthorizing the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the landmark transportation legislation which this Committee helped to shape six years ago.

This morning I am here to speak about the National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA), the successor to ISTEA recently proposed by President Clinton, Vice President Gore, and Secretary Slater. I especially want to discuss how NEXTEA can sustain its predecessor's commitment to meeting the transportation challenges faced by urban America.

Before ISTEA, federal surface transportation policy focused almost exclusively on building highways and, to a lesser extent, transit systems. Federal assistance was provided through a bureaucratic, inflexible system of grant reimbursements with unnecessarily burdensome levels of oversight. Simplistic, one-size-fits-all solutions were common. The different transportation modes were not viewed as part of an interrelated whole serving vital national interests, nor were transportation's impacts on other concerns, such as the health of our environment or the condition of our cities, the subject of much consideration.

ISTEA changed all of that. Beginning with the first word of its title, "Intermodal," it signaled a change in how the federal government viewed surface transportation and a redefinition of its role in enabling transportation systems.

ISTEA emphasized an integrated approach to transportation planning and programming, looking at the different forms of transportation as parts of a network and bringing together many constituencies and interests which had not previously been part of these decision-making processes. That resulted in such innovations as New Jersey's integrated intermodal transportation plan.

ISTEA also began to streamline federal administrative processes, revamping the statewide and metropolitan planning procedures, simplifying requirements, and removing layers of oversight and eliminating many reporting mandates.

ISTEA also required that a broad range of transportation's impacts, such as those on air and water quality, be analyzed and, in many cases, actively mitigated through initiatives such as the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Together with cleaner vehicles and fuels, programs such as CMAQ have helped to vastly improve air quality. In 1990, 140 million Americans lived in areas which failed to meet standards for healthful air. That number dropped to 64 million last year -- still too many, but a significant improvement nonetheless.

In viewing transportation as a means, and not as an end in itself, ISTEA enabled state and local officials to set their priorities based not on what kinds of funding might be available but rather on what types of projects would best meet the mobility needs of individual communities and regions. This emphasis on intermodalism was promoted by ISTEA's expansion of the ability of states to transfer funds between programs and among transportation modes.

By creating the Bureau of Transportation Statistics, ISTEA also began to establish a base of information to support transportation decision-makers at all levels of government and in the private sector. It collects data from all modes of transportation, performs analyses, improves the comparability and quality of transportation data, and makes it readily accessible to the public. The work it has done, such as national surveys of commodity flows and passenger travel, is invaluable to informed planning.

Even as ISTEA changed how transportation projects and initiatives are selected, it also transformed how they are designed, funded, and built. Improvements in design and engineering have enhanced quality. Innovative contracting is beginning to cut construction costs, accelerate project implementation, and enhance value. New materials developed under ISTEA-

authorized research programs, such as high-performance concrete and Superpave asphalt, are also increasing the useful life span of our infrastructure and reducing long-term replacement costs.

Experimental provisions within ISTEA have made possible innovative financing, which cuts red tape to move projects ahead faster and leverages federal funding with private and nontraditional public sector resources.

The President's Partnership for Transportation Investment, which used ISTEA's experimental provisions for such strategies as toll credits for state matching funds and federal reimbursement of bond financing costs, has advanced 74 projects in 31 states with a construction value of more than \$4.5 billion, including more than a billion dollars in new capital investment directly attributable to this program. Many of these projects are progressing to construction an average of two years ahead of schedule.

For example, New Jersey used phased funding to begin work a year early on a new viaduct at the interchange of Routes 1 and 9 in Newark. The state also was able to apply toll road revenues used for capital investments as the match for federal funds, effectively freeing up more than \$800 million for other projects.

And in New York, a lease-leaseback transaction for a new Long Island Railroad maintenance facility will enable the Metropolitan Transportation Authority to realize a current benefit of over \$22 million.

ISTEA recognized that new priorities and new ways of doing business can best be encouraged by ensuring that the funding provided to support them is adequate. Towards that end, ISTEA increased overall federal transportation funding authorizations. President Clinton has worked with Congress to make the most of those higher authorizations, raising infrastructure investment by more than 20 percent, to an average of more than \$25 billion annually over the past four years.

This funding is making possible major regional improvements such as the Queens Connector in New York and the Hudson-Bergen Light Rail Line in New

Jersey. ISTEA's greater programmatic flexibility also has enabled funding to be transferred to transit and other urban priorities. Over \$3 billion traditionally earmarked for highways was used for high-priority transit projects, mostly in cities, increasing overall transit funding under ISTEA to more than \$5 billion in fiscal year 1995 alone.

Although record levels of funding have gone to transit and to such alternatives as bicycle and pedestrian programs in urban areas such as this one, most funding elsewhere in the U.S. has continued to be used to maintain and expand our highways, the backbone of travel in much of the nation.

ISTEA's legacy, then, is one of meeting the transportation challenges of the 1990s through new emphases and new strategies without neglecting traditional concerns. As we approach the 21st century and demands brought about by such varied factors as our economy's increasing globalization and the changing demographics of our population, we want to build on ISTEA's successes.

Two years ago, when we first started to consider what form ISTEA's successor should take, we began an extensive process of outreach to our constituents which included major regional forums and scores of other meetings involving thousands of attendees from state and local governments, the transportation industry, other interested groups such as freight shippers and environmentalists, and the general public.

Overwhelmingly, the message we heard was that ISTEA has been a success, and that we should continue the many federal programs which are working, refine those which have not yet fully realized their promise, and create new initiatives to meet the challenges of the new century. We believe that NEXTEA does all of these things.

It would increase overall federal surface transportation by 11 percent, from ISTEA's \$157 billion to approximately \$175 billion for fiscal years 1998-2003. That includes a 30 percent increase in core highway programs, such as those for Interstate Highway maintenance, bridge repairs, and the new National Highway System. It also includes a 17 percent increase for major capital investments, which would support new mass transit lines.

If Congress funds NEXTEA at the levels we have proposed, that would mean \$11.982 billion for New York State over the next six years in formula-based grants alone. It also would mean more than \$4.965 billion for New Jersey and more than \$2.716 billion for Connecticut for fiscal years 1998-2003. In fact, 49 of the 50 states would receive more funding under NEXTEA than under ISTEA. (The sole exception, Massachusetts, received unusually high levels of funding under ISTEA to support construction of Boston's Central Artery project.)

Such funding also could be directed to urban priorities because of increases in the flexible Surface Transportation Program and because Amtrak, intercity public rail terminals, and projects to improve access to ports would be made eligible for funding.

This funding and the projects it would support would help to reduce the \$50 billion a year that congestion costs commuters and freight shippers. There is also an even more direct economic benefit: the construction and other work generated by this plan could create nearly one million jobs over the next six years, including 75,000 jobs here in New York, 32,000 jobs in New Jersey, and 18,000 in Connecticut.

NEXTEA also sustains the federal commitment to intelligent transportation systems (ITS) created by ISTEA. ITS applies advanced information and communications technologies to transportation through systems available today such as ramp meters and synchronized traffic lights, and through technologies which could be available tomorrow, such as advanced collision avoidance systems.

In metropolitan areas, these technologies can cut by 35 percent the cost of providing the highway capacity we need over the next decade. That is why we are promoting the integrated deployment of ITS technologies. In fact, the New York-New Jersey-Connecticut metropolitan area is one of four chosen, with federal support, to serve as models for such deployment.

NEXTEA includes a research component which would support technology development and ITS deployment through standards development, training, and technology transfer. It also would fund work in collision avoidance and vehicle control systems to reduce crashes. We have proposed \$678 million over the next six years for such initiatives. We also have proposed a six-year, \$600 million incentive program to promote the deployment of ITS infrastructure technologies that are technically feasible and highly cost-effective.

Our transportation system is not just about moving people and products efficiently, as important as that is to our prosperity. It also is about enabling people to travel safely. Travel is safer than it was at the beginning of the decade, but as traffic increases, so does the possibility of more highway crashes.

ISTEA has addressed safety, supporting programs to prevent drunk driving and to raise safety belt use. It also has supported initiatives such as New York's Pedestrian Safety Program, which cut pedestrian fatalities by 28 percent over a three-year period.

The President's proposal would build on such successes by increasing highway safety funding authorizations by more than 25 percent, and by supporting new programs targeted to the biggest safety payoffs: combating drunk and drugged driving and increasing proper use of safety belts and child restraints.

NEXTEA also would protect the environment. As with highway safety, more traffic challenges the progress we have made. More cars, even cleaner cars, mean more pollution. That is why we have to continue, and even expand, the efforts which have brought us this far.

NEXTEA increases by 30 percent funding for CMAQ to help communities use innovative transportation initiatives to clean up their air. That includes everything from high-speed ferries in Rhode Island to the Red Hook Marine Terminal freight container barge, which takes hundreds of trucks off of New York City's streets each day.

NEXTEA also continues investment in bicycle paths, scenic byways, recreational trails, and other programs that cost relatively little but which greatly improve the quality of our lives. For example, last year the Merritt Parkway and State Route 169 in Connecticut have been designated as National Scenic Byways. Transportation Enhancements and other funding are supporting implementation of the New York City bicycle plan, which ultimately will have 500 miles of on-street bike lanes. And ISTEA funding helped to restore the historic Netherwood Station in Plainfield, New Jersey.

The President's plan also addresses other national priorities. It would help to reduce the barriers faced by those moving from welfare rolls to payrolls by giving them affordable transportation to jobs, training, and support services such as child care. That is important, since two-thirds of new jobs are in the suburbs and few welfare recipients own cars.

NEXTEA is intended to help bridge the gap between people and jobs. It includes a six-year, \$600 million program of flexible, innovative alternatives, such as vanpools, to get people to where the jobs are.

NEXTEA also continues the commitment to common sense that President Clinton and Vice President Gore have brought to government operations over the past several years.

NEXTEA proposes more common-sense ideas: focusing on results, not on process; cutting red tape and streamlining requirements; promoting innovation, such as more new ways to pay for roads and transit systems; and giving state and local officials even greater flexibility to target federal funds to projects which best meet community needs.

NEXTEA expands our innovative financing program. For example, it includes \$900 million in seed money for state infrastructure banks, which leverage private and other nonfederal resources, and opens this program up to all states.

It also dedicates \$600 million to help leverage nonfederal resources for projects of national significance which individual states cannot afford, such as

interstate trade corridors. That is something which would have fallen between the cracks in the past, when we did not try to coordinate transportation among states or among different modes.

NEXTEA also makes the transportation planning process simpler and smoother for our state and local partners. It would streamline the 23 statewide and 16 metropolitan planning factors into seven broad goals that states and localities can use as appropriate to guide their planning, emphasize system operations and management so that planning considers a complete range of transportation options, including intelligent transportation systems, and it would expand planning's inclusiveness by ensuring that the concerns of freight shippers are heard.

NEXTEA also continues to cut federal bureaucracy by reducing project reporting and certification requirements. We know that we must trust our partners in state and local government and the private sector instead of burdening them with paperwork.

By expanding the scope of work carried out by the Bureau of Transportation Statistics, NEXTEA also would provide decision-makers with more of the information they need to make the right choices. Under NEXTEA, we would expand services to states and metropolitan planning organizations, expand the National Transportation Library and similar activities, and extend our data base to include more statistics on the global economy and how it affects local transportation and economic activity.

Finally, NEXTEA sustains our support of the University Transportation Centers (UTC), such as the one at City College of New York, which prepare professionals to design, build, and operate the transportation systems of the future. Work done through the UTCs also has resulted in benefits to current programs. For instance, The New York City Transit Authority recently determined benchmarks for bus maintenance tasks based upon UTC-provided analyses, and the New Jersey Transportation Economic and Land Use System, which assists state and local planners, was developed through a UTC initiative.

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NEXTEA, in summary, is faithful to what we heard from our constituents: sustain ISTEA's principles, streamline its requirements, and increase its flexibility and funding levels.

It would help to give Americans what they told us they want: a transportation system that is sensitive to environmental concerns and that enables them to get to their destinations safely, conveniently, and on time.

We listened to them, and we learned, and we have produced a proposal which can take America's transportation system into the 21st century. President Clinton, Secretary Slater, and I look forward to working with you and your colleagues in Congress to make it a reality.

This concludes my statement. Now, I'd be pleased to answer any questions you may have.



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PRIORITIES FOR ISTEA REAUTHORIZATION

12/13/96

Preserve and strengthen ISTEA planning requirements. Metropolitan and Statewide Planning requirements should be retained to ensure consideration of the long-term (20 year) impacts of projects on the environment and other factors, evaluation of alternatives, and public involvement. These should include a public right to know the detailed assumptions and impacts of transportation plans and programs. These should include minimum performance criteria for transportation modeling in mid and large metropolitan areas to ensure analytically sound performance evaluations. These planning requirements are critical linkages necessary to make the Clean Air Act conformity process meaningful. A 3 year time limit should be placed on further grandfather exemptions from ISTEA and CAA requirements for transportation projects that have not yet received final federal funding and approvals or begun construction.

Provide incentives for innovative problem solving through funding. ISTEA funds should be set aside or at least made explicitly eligible to support specific activities that reduce growth in travel demand (such as the planning and development of Transferable Development Rights (TDR) programs and other zoning and urban/street design and management strategies) by local, regional, and state governments and non-governmental organizations (NGOs). NGOs should be made explicitly eligible to be primary project sponsors for ISTEA grant funds. Funding incentives should be included in the ISTEA funding formula to reward achievement of outstanding performance in meeting important national goals, including VMT reduction, highway maintenance, and enhancement of environmental quality. Funding incentives should also be included for enhancement of transportation and land use planning tools and data systems to support local and national performance measurement and evaluation. Preserve dedicated environmental funding in the Congestion Management and Air Quality (CMAQ) Improvement Program and support transportation conformity requirements.

Encourage market-based transportation pricing reforms. ISTEA should remove restrictions that prevent the application of tolls on Interstate and federally funded highways and encourage time-of-day variable road tolls (also known as congestion pricing) that apply market principles to enhance mobility, environmental protection, and economic vitality. Continued funding and expanded authorization for congestion pricing is necessary to build on the success of the past five years. Federal tax code change is needed to encourage equal tax treatment of commuter subsidies.

EDF has prepared more detailed materials discussing these and related issues, available upon request. Contact Michael Replogle 202-387-3500.

~~144~~

Fax:

EPA response to DOT CMAQ
Comments

From:

Maryann Froehlich

Date:

Pages:

page(s) including this page.

fax

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 Jane Garvey 366-3244
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 456

From the desk of...

Maryann Froehlich
 Director, Office of Policy Development
 US EPA/OPPE
 401 M Street, SW MC2121 Roomm 1005WT
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* includes draft CMAQ one pager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
POLICY, PLANNING AND EVALUATION

May 5, 1997

MEMORANDUM

SUBJECT: CMAQ Emission Reduction Assessment

FROM: Maryann Froehlich, Director
Office of Policy Development

A handwritten signature in cursive script, appearing to read "Maryann Froehlich".

TO: Janno Lieber, Deputy Assistant Secretary

I would like to update you on the status of EPA's CMAQ analysis, and let you know how we have responded to your staff's comments. First, let me say that we appreciate DOT's input, and have taken your staff's comments very seriously. Unfortunately, given the timing of the NEXTEA and Environment White House event, we have not had as much time as we would like to work through the analysis with you and your staff. One suggestion that partially responds to your staff's concerns is to call the report a "preliminary assessment." I believe this will allow us sufficient leeway to modify the numbers at a later date if warranted by additional analysis. Before I summarize our response to your staff's comments, I will review the draft final results of our analysis:

Summary of Analysis

- By 1997, our analysis projects that CMAQ will be having a moderate affect on emission levels. For example, CMAQ VOC emission reductions are projected to be 48,000 tons per year, in 1997, while VOC emission reductions expected from Clean Air Act (CAA) tailpipe controls, reformulated gasoline and inspection and maintenance for the same time period are expected to drop by 1,056,000 tons per year (Figure 1a). On a percentage basis, 1997 CMAQ VOC emission reductions would equal 5 percent of the CAA reductions.
- Under NEXTEA, the projected emission reductions from CMAQ by 2003 would increase substantially, both in an absolute and relative terms. For example, from 1995 to 2003 CMAQ is project to reduce VOC emission by 90,000 to 130,000 tons per year, compared with 48,000 tons per year in 1997 (Figure 2a). The reason for this substantial increase is that by 2003 their will be nine years worth of CMAQ projects reducing VOC emissions.
- In relative terms, CMAQ VOC emission reductions, by 2003, would equal 11 to 25 percent of total CAA tailpipe, etc. reductions, a substantial increase from the 5 percent level in 1997.



The reason for this increase is twofold: 1) by 2003 the number of CMAQ projects will have more than doubled over 1997 levels, and 2) the growth in annual emission reductions from CAA requirements (tailpipe controls, etc) will have declined substantially.

Response to DOT Comments

As I mentioned above, EPA took DOT's concern with the cost numbers very seriously. Upon hearing about this potential problem, EPA undertook a line-by-line analysis of California's and Pennsylvania's CMAQ projects for 1994 through 1996. While there were some multi-year projects, they only accounted for a very small percentage of total emissions: 2% of the Pennsylvania emissions, and 2.5% of the California projects. Your staff also suggested that the costs and emission reductions that are reported as part of engineering reports and planning studies would bias our analysis upward. First, our line-by-line analysis of the California and Pennsylvania CMAQ data strongly suggests this is not a problem. Even if it was a problem, our approach of using the 50th and 60th percentile cost-effectiveness numbers would minimize the bias from the engineering reports and planning studies. The effect of a large number of very cost-effective engineering studies would be to push the 50th percentile up slightly.

One reason we were surprised by DOT's concern over the cost numbers is that the issue is not specifically raised in FHA's FY 1994 Annual CMAQ report, or the 1996 CMAQ Program Review Final Report. In fact, Table 5 in the FY 1994 report use the cost and air quality data in a similar fashion as EPA's analysis, yet no specific concern is raised regarding the cost data. While this does not mean a problem does not exist, it does suggest our approach to dealing with this issue, i.e., our CA and PA line-by-line review, using the 50th and 60th percentile estimates, and calling the report a preliminary assessment, is appropriate.

DOT staff also raised a concern that the analysis could be used to undermine support for transit. EPA is a strong supporter of transit projects and agrees strongly that we do not want to undermine support for transit. EPA believes that someone would have to intentionally misuse the numbers to try and undermine transit. However, this has been known to happen, and so we have taken a number of steps to discourage this by clarifying how the CMAQ data can be used, and by providing a less prominent discussion of the cost-effectiveness number. DOT staff also raised a number of other concerns, and a detailed response is provided on the attachment.

If you have any other questions about this matter, please give me a call (260-4038), or you may want to have your staff call Ken Adler (260-6925).

cc: Jane Garvey
Camille Mittelholz
Jim Schrouds
Mike Savonas
David Gardiner
Margo Oge
Linda Lance
Diane Montgomery
Dorothy Robyn

Figure 1a. Estimated Annual Emission Reductions from On-road Vehicles--1997
Nitrogen Oxides and Volatile Organic Compounds

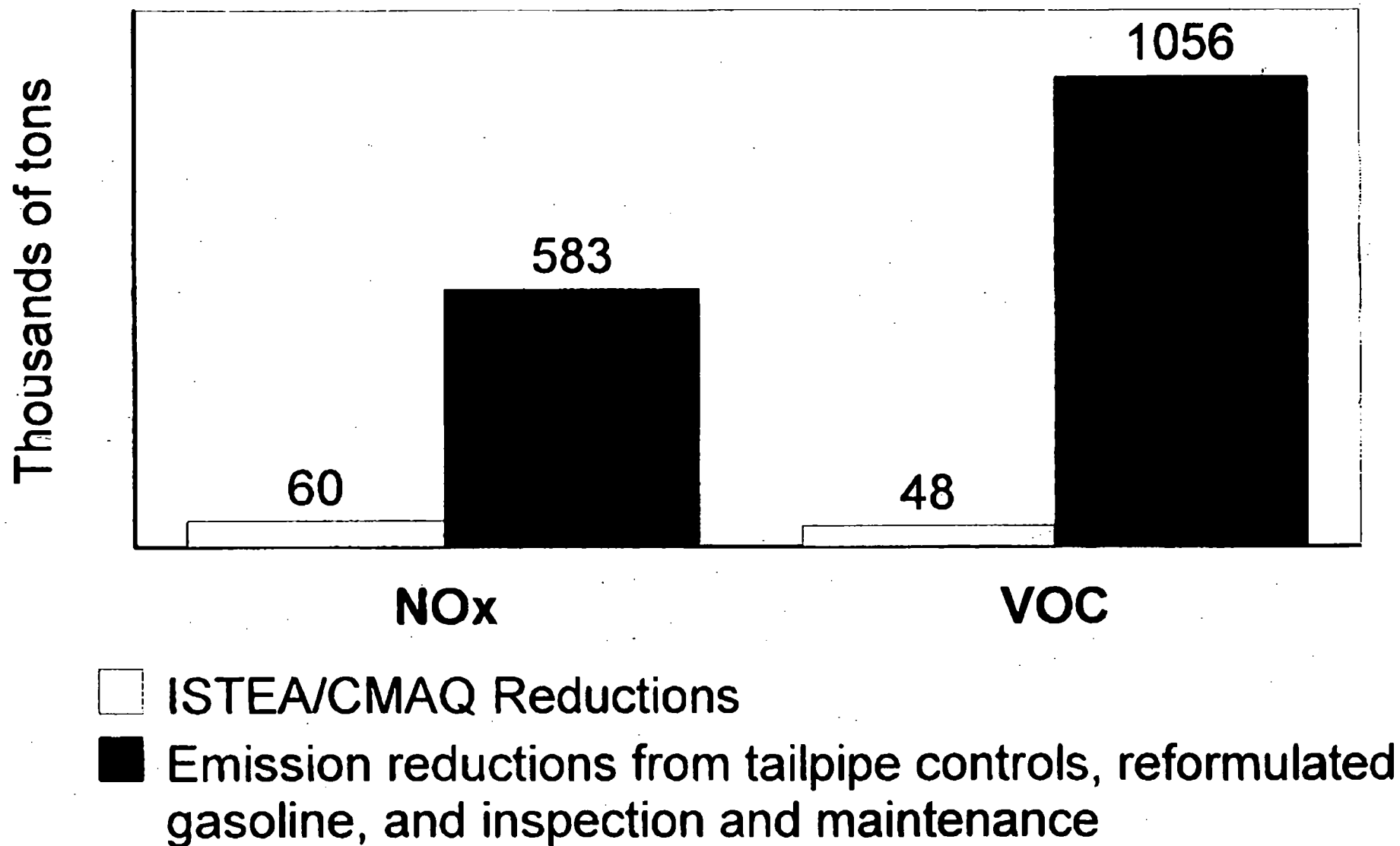


Figure 2a. Annual Emission Reductions from On-road Vehicles by 2003
Nitrogen Oxides and Volatile Organic Compounds

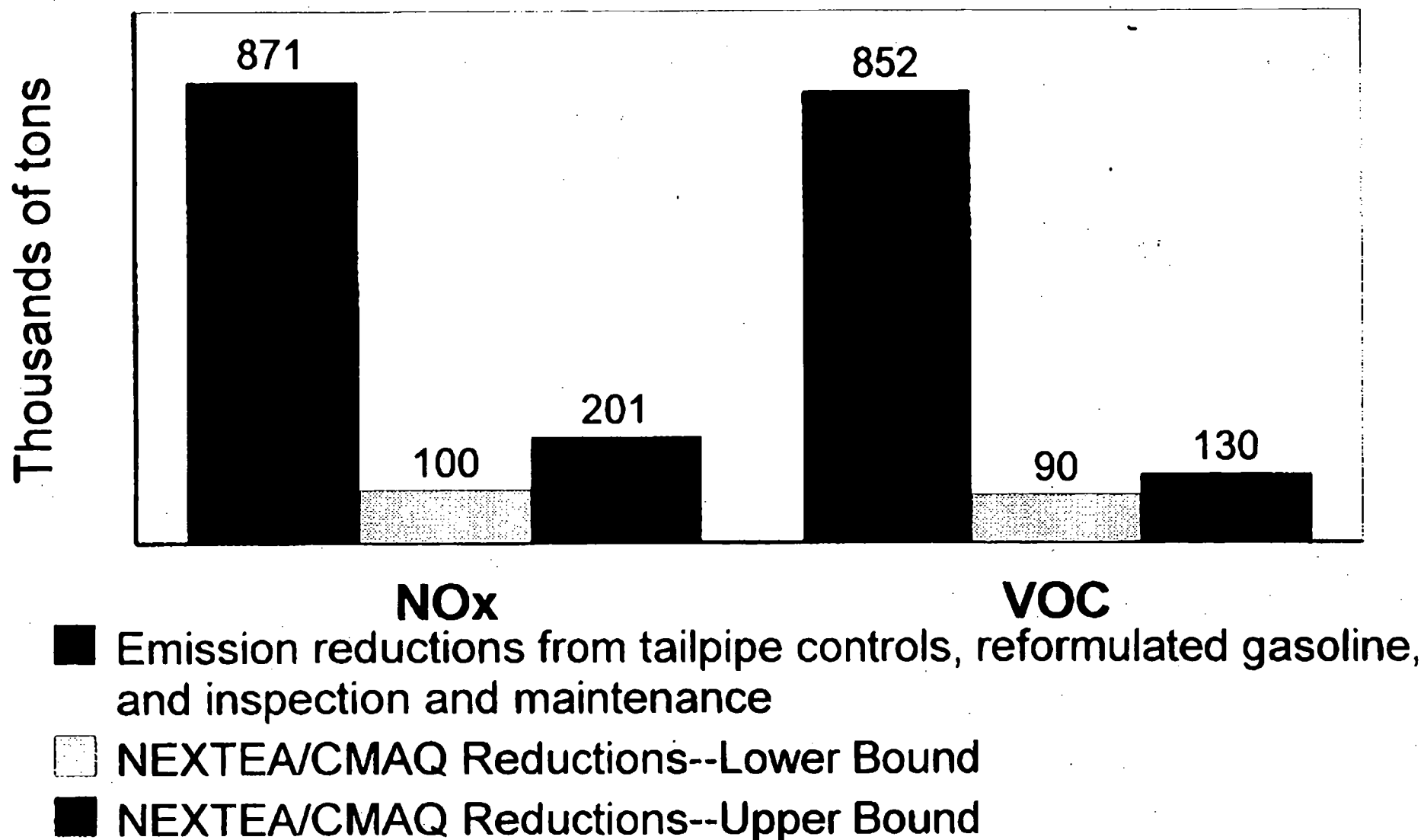
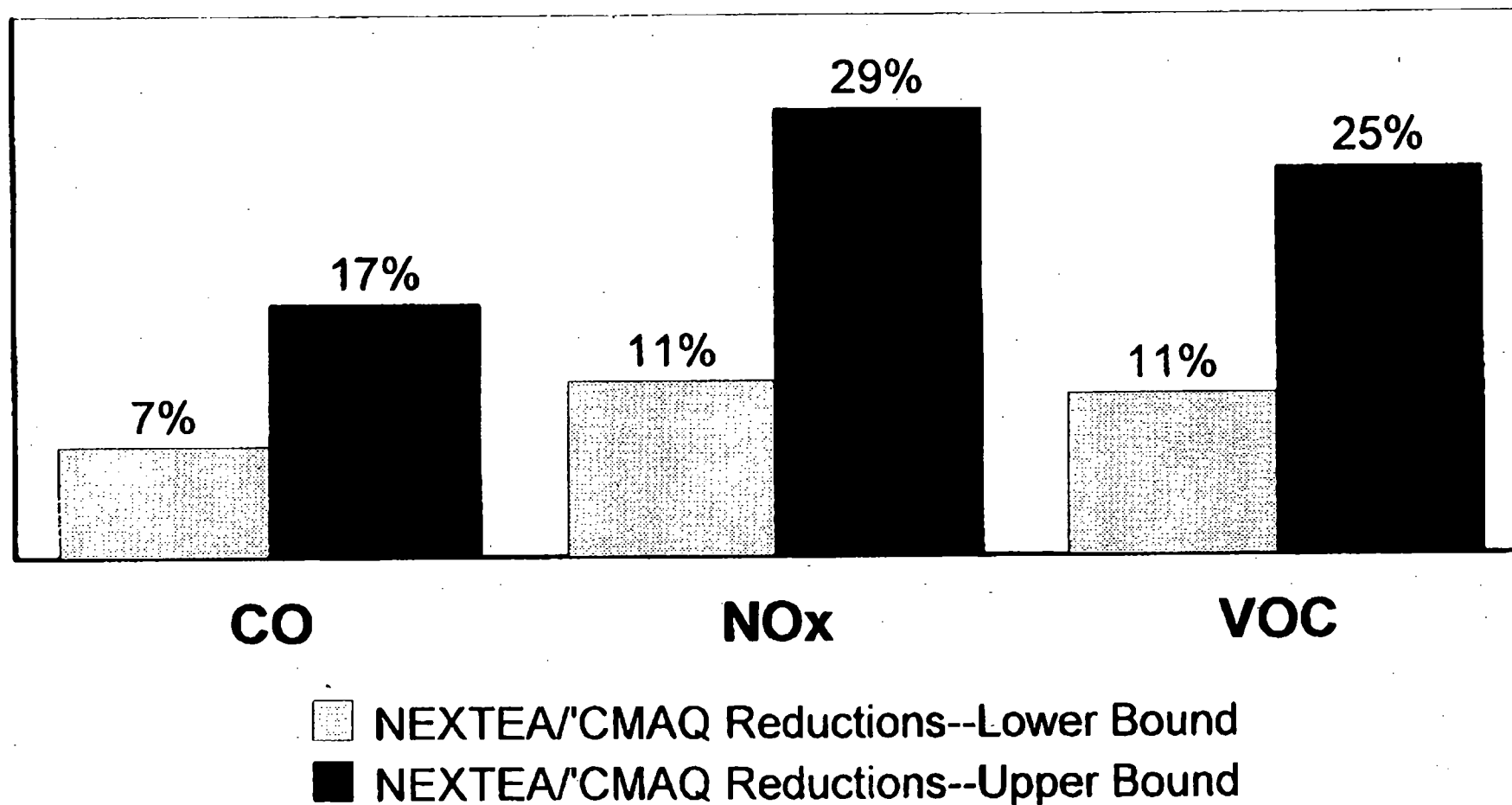


Figure 4. Estimated NEXTEA/CMAQ Emission Reductions in 2003
As a Percent of Future Vehicle Emission Reductions in 2003 (see footnote)



Future vehicle emission reductions are based on projected reductions from tail pipe controls, reformulated gasoline, and inspection and maintenance.

May 5, 1997

Response to DOT Comments on EPA CMAQ Analysis

1. DOT Comment

"The most serious [methodological shortcoming] is that the cost data used to determine the cost-effectiveness of projects under represents the true costs of the projects in a number of ways. First, the costs reported in the annual CMAQ summary are for the costs for only FY1994, and may only represent costs for only a phase of the project, such as preliminary engineering or a feasibility study.... The emission reduction benefits, on the other hand, are for the completed project. As such, the reported cost-effectiveness of the project in the analysis may be greatly exaggerated."

1. EPA Response

- a. EPA took DOT's concern with the cost-effectiveness numbers very seriously. Upon hearing about this potential problem, EPA undertook a line by line analysis of California's and Pennsylvania's CMAQ projects for 1994 through 1996. While there were some multi-year projects, they only accounted for 2% of the Pennsylvania emissions, and 2.5% of the California projects. EPA does not believe the cost numbers in the 1994 DOT CMAQ report significantly underestimate the cost of the CMAQ projects.
- b. DOT suggests that the costs and emission reductions that are reported as part of engineering reports and planning studies would bias our analysis upward. First, our line-by-line analysis of the California and Pennsylvania CMAQ data strongly suggests this is not a problem. Even if it was a problem, our approach of using the 50th and 60th percentile cost-effectiveness numbers would minimize the bias from the engineering reports and planning studies. The effect of a large number of very cost-effective engineering studies would be to push the 50th percentile up slightly.
- c. It should be noted that the cost concerns raised by DOT in their 4/29/97 memo, and in recent meetings, are not raised in DOT's FY1994 Annual CMAQ Report (though the report does document many other limitations of the data, which we report in our CMAQ analysis). Moreover, Table 5 in DOT's CMAQ report use the cost and air quality data in a similar fashion as EPA's analysis, yet no specific concern is raised regarding the cost data.
- d. DOT's September 6, 1996 report titled, CMAQ Program Review Final Report, which includes an extensive set of recommendations for improving CMAQ data collection, makes no mention of the problems with the cost data.
- e. While EPA recognizes that there are problems with the CMAQ data, which we discuss in detail in our CMAQ analysis, we believe the CMAQ data, combined with our analytic approach provided sufficiently robust, if not overly conservative, results. Nevertheless, it would be prudent to call EPA's analysis a "preliminary assessment", which will allow us to make adjustments to the results, if warranted by future analysis.

2. DOT Comment

"Secondly, there is no consideration of other federal funds that may be used in the projects."

2. EPA Response:

The cost-effectiveness numbers that EPA reports in the CMAQ analysis only represent the CMAQ portion of the costs. These numbers were used only as an intermediate step in the analysis to estimate future emission reductions, based on an increased funding base. (It would not be appropriate to add state match or operational costs to these estimates.)

3. DOT Comment

"The analysis confuses national emission reductions with local air quality needs."

3. EPA Response

a. Given the time and data constraints, EPA decided to focus on the national emission reductions from CMAQ, and to compare them with national emission reductions that are projected to occur from Clean Air Act (CAA) tail pipe emission controls, reformulated gasoline, and inspection and maintenance. This approach underestimates the true contribution of CMAQ to helping state and locals come into attainment. A more accurate approach would be to compare CMAQ emission reductions with projected CAA emission reductions in non-attainment and maintenance areas. EPA has initiated analysis for five to eight metropolitan areas to better address this issue.

4. DOT Comment

"We do not want to hurt the coalition of CMAQ supporters by putting out an analysis that implies that capital intensive transit projects are somehow underserving of CMAQ funds if they do not appear to be cost-effective."

EPA Response EPA agrees strongly that we do not want to undermine support for transit projects. EPA believes that someone would have to purposely misuse the numbers to try and undermine support for transit. However, this has been known to happen, and so we have taken a number of steps to clarify this in the analysis:

a. While CMAQ transit projects are substantially less cost-effective than other CMAQ projects at reducing emissions, transit projects also provide other substantial benefits, e.g., mobility, that need to be factored into the analysis before a fair comparison can be made.

b. We use a very conservative estimate for the longevity of transit projects based on California's methodology (8.5 year), and for more capital intensive projects it would be appropriate to use a 20 to 30 year lifespan. This would make transit projects more cost-effective.

c. We have taken the cost-effectiveness numbers out of the report. However, at some point people may ask to see these numbers, and we will need to release them. When/if we release the cost-effectiveness numbers we can provide more context for the data.

5. DOT Comment

"...we believe that we should develop emission reduction estimates using the CMAQ annual reports that do not consider costs, since these data are not reliable indicators. The stream of benefits could then be calculated, depending on the projects useful life."

5. EPA Response

EPA's analysis strongly suggests that calculating a stream of benefits based on the CMAQ annual reports would result in a large overestimate of CMAQ emission reductions. As shown on the attached chart, EPA estimates annual VOC emission reductions under ISTEA to be approximately 12,000 tons per year, while the 1995 CMAQ annual report estimates VOC reductions to be 37,000 tons. The numbers in the CMAQ annual report are distorted by a few very large projects, which would not make them a reliable base for estimating annual national emission reductions. EPA's approach of using the 50th and 60th percentile cost-effectiveness numbers prevents our analysis from being biased by very large or small projects.

The Transportation Enhancements program allows states and communities to fix the problems caused by traditional transportation projects. Projects such as rails-to-trails, greenways, and bicycle/pedestrian paths support non-motorized transportation, provide increased mobility, expand recreational opportunities, increase economic development, clean the air, and reduce non-point source water pollution. These are tangible benefits that enhance livability and provide a sense of community.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, DC 20503

x6 2223

F A C S I M I L E C O V E R S H E E T

TO: Dorothy R.

TELEPHONE: _____ FAX: _____

FROM: TCIS/Transportation Branch

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- ☐ Sharon Barkeloo
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NUMBER OF PAGES SENT: _____ (including this cover sheet)

COMMENTS: DOT comments to EPA draft.

U.S. Department of
Transportation
Office of the Secretary
of Transportation
P-10

FAX TRANSMITTAL SHEET**Office of Regulatory Affairs**TO: Addressees

Tel. # _____

FAX # _____

FROM: Camille MitchellTel. # 366-4864FAX # (202) 366-7618NUMBER OF PAGES TO FOLLOW: 2**SPECIAL REMARKS OR INSTRUCTIONS:**

Shrouds > 63409
Savonis

Linda Lance, CEA 456-6546

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Ken Adler 260 2300



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

Memorandum

Subject: Draft "NEXTEA and the Environment:
Preserving and Improving Environmental Success"

Date: April 29, 1997

From: Camille Mittelholtz *Camille*
Chief, Environmental Division
Office of Transportation Policy

**Reply to
Attn. of:**

To: Ken Adler
Office of Policy, Plans and Evaluation
Environmental Protection Agency

On behalf of FHWA and OST, I am forwarding our comments to you on your draft paper on NEXTEA and the Environment. I will send our comments on your paper, "The Emission Reduction Potential of the CMAQ program" separately. We appreciate your efforts in developing the draft and believe that it can serve as the working basis for an information document as we have discussed with OMB and CBQ. Nonetheless, we have comments about its overall approach and structure. This document addresses only the CMAQ program. A broad document on all the environmental programs is needed, and we need to make a decision whether to develop that as a separate document or expand this draft to address the other programs/initiatives. Our specific comments follow by section:

Introduction and Transportation and the Environment

- The document spends too much time developing background information. Three and one-half pages of the 5-page document are devoted to background information. This could be pared back to about 1 page or less.
- The approach taken in these 2 sections is geared more toward an audience of environmentalists in that it brings up arguments for a program like CMAQ that might better resonate with environmentalists rather than with the transportation community. We would suggest that the audience that needs to be convinced of the benefits of the CMAQ program is better typified by the transportation community and that we should develop arguments that would resonate with them. Generally, we need to avoid "transportation bashing" while admitting that transportation does have effects on the environment which we want to address through NEXTEA.
- In addition to being too long, we disagree with many of the assertions regarding VMT and travel and strongly suggest they be deleted. EPA's own research, as well as that

of DOT, shows that technology can continue to bring emissions down even if VMT continues to rise. We would note that the VMT discussion does not represent an Administration position, and since there is disagreement, deleting this section would preclude drawn out discussions and wordsmilling.

- The discussion regarding greenhouse gases seems misdirected. The CMAQ program is targeted at criteria pollutants, and its benefits will be directly felt in this area. We suggest toning down or deleting this discussion, as well.

NEXTEA and CMAQ

- This section contains the basic information. We would suggest it needs to be slightly refocused to provide more context on the need for the changes we are suggesting under NEXTEA. Specifically the need to maintain a level playing field and to apportion funds on the basis of need.

MISSING SECTIONS

- We note that there is a placeholder for a discussion of the CMAQ benefits. We would suggest that a more complete discussion than just air quality benefits be provided, and that this serve as the major focus of the piece. We believe that the straw proposal developed by FHWA would serve as a stand alone section between the background sections and the NEXTEA section.

We also have a number of specific comments on the technical information which we will share as the document gets further along. In terms of making quick progress on the document, we suggest that you send us an electronic file of the document so that we can expand and enhance it along the lines of our comments. As the document nears completion, it might be useful to have one of our speech writers edit the piece to make it easily understandable for a broad audience. Finally, we need to decide how best to incorporate the other environmental aspects of NEXTEA.

cc Linda Lance, CEQ
Diane Montgomery, OMB
Jim Shrouds, FHWA
Mike Savonis, FHWA



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, DC 20503

F A C S I M I L E C O V E R S H E E T

TO: Dorothy Robyn

TELEPHONE: _____ FAX: _____

FROM: TCJS/Transportation Branch

- ☐ Jonathan Ball
- ☐ Sharon Barkeloo
- ☐ Andrew Kleine
- ☒ Diane Montgomery
- ☐ Kim Nakahara
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- ☐ Dan Tangherlini
- ☐ David Tornquist
- ☐ David Worzala

TELEPHONE: 395-3834 FAX: (202) 395-4797NUMBER OF PAGES SENT: 15 (including this cover sheet)

COMMENTS: The following materials are what I have received to date from EPA & DOT. Document # 1 is EPA's draft CMAA Paper, which I referred to in my e-mail last night. Document # 2 is DOT's outline for it's cut--still needs to be fleshed out. And Doc. # 3 is a summary of EPA's initial analysis of potential CMAA emissions reductions under NEXEA.

~~We~~ We still have work to do. Diane

ENDATA/FAXCOVER.WTD

Document
#1**FAX TRANSMISSION**

U.S. ENVIRONMENTAL PROTECTION AGENCY

~~OFFICE OF SUSTAINABLE ROADS AND COMMUNITIES~~

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Mike Savonar 366-3409
To: Peter Lidiak
Linda Lanza 456-6546 Date: 4/18/97
Fax #: Diane Montgomery 4797 Pages: (Including cover sheet).
395-3827
From: Ken Adler 260-6925
Subject:

Draft NEXTEA/Environment Handbook

COMMENTS:

Please let me know if you have comments
by COB 4/29. Language comes primarily
from OMB approved EPA+DOT testimony.

NEXTEA And the Environment: Preserving and Improving Environmental Success

**Focus on the Congestion Mitigation and
Air Quality Program**

April 16, 1997

Draft-1

Building a Sustainable Transportation System for the 21st Century: Key NEXTEA Environmental Principles

NEXTEA and the Environment: Preserving and Improving an Environmental Success

Make no mistake about it, this is one of the most important pieces of environmental legislation that will be considered by Congress in the next two years. And I think it should be thought of in that way.

President Bill Clinton, March 12, 1997

Introduction

ISTEA today is widely applauded for the innovations it introduced into national transportation policy. ISTEA emphasized the importance of local input into the transportation planning process. It included requirements for interjurisdictional coordination. It provided unprecedented flexibility for how transportation funds could be spent. And not the least of ISTEA's innovations was the heightened attention paid to the environmental consequences of transportation.

The Congestion Mitigation-Air Quality Program (CMAQ) is our most successful example of this new, and wholly appropriate, emphasis on innovation and the environment. In CMAQ, for the first time, we have a federally-funded transportation program that is targeted explicitly at air quality. We have a program that is substantially reducing pollution from cars, trucks and buses. Recent CMAQ analysis suggests that CMAQ is reducing X tons of volatile organic compounds per year from transportation sources. These reductions help cities comply with Clean Air Act requirements. CMAQ has made funding available for projects and activities that never before would have been eligible for federal aid highway or transit funds. While other programs, such as the Surface Transportation Program, have the flexibility to support projects with air quality benefits, CMAQ is distinct as the largest source of funding that targets air quality improvements exclusively.

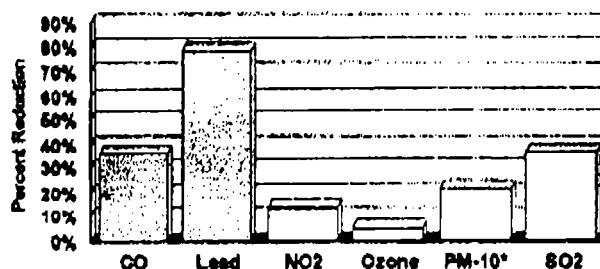
The CMAQ program has proven to be ISTEA's most flexible program, representing more than half of all flexible funds used for transit purposes (\$1.7 billion of \$3.0 billion). Other non-highway projects that assist areas in improving air quality are receiving an increasing share of CMAQ funds as well. Through 1996, over \$500 million in CMAQ funds were used to establish or expand rideshare services, promote demand management, and support bicycle and pedestrian travel through better routes, sidewalks, and improved security features such as bicycle racks and lockers. The CMAQ program has funded projects ranging from San Francisco's Incident Management Program, to the intermodal freight facilities in Portland, Oregon, and Auburn, Maine, to New York's Red Hook Barge intermodal project, to Glendale, California's, award-winning parking management program, which helps employers reduce emissions by encouraging their employees to consider options to driving alone each day. As these projects demonstrate, CMAQ has brought new players to the table, including bicycle and pedestrian enthusiasts, intermodal freight interests, and demand management professionals, and has strengthened coordination between State and Federal transportation and air quality agencies.

Transportation And The Environment

After energy use, no other sector of the economy has the potential to affect the quality of the environment as does transportation. The ever-growing numbers of cars and trucks on the nation's roads and highways can adversely impact our air, water, and fragile wildlife habitats and burden our landfills. In addition, transportation now accounts for the fastest growing portion of greenhouse gas emissions in the United States.

Over the past 25 years, this country has made great strides in reducing the harmful emissions from highway vehicles primarily by improving emission control technology on cars and trucks, developing cleaner fuels, and ensuring that vehicles are properly maintained in-use.

Figure #. Percent Decrease in Emission (1986-1995)*

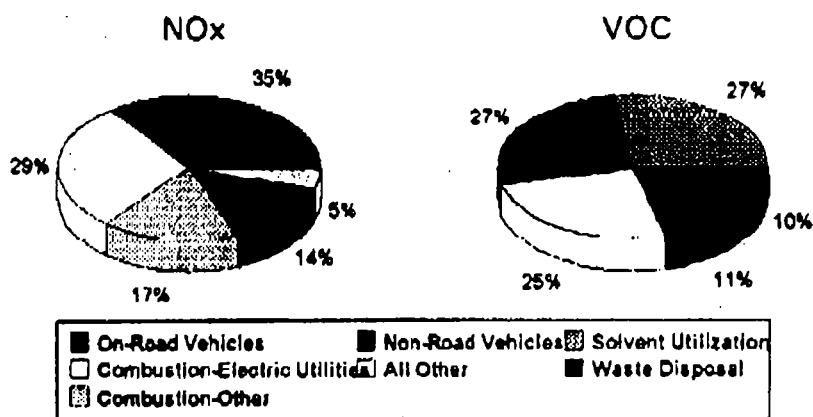


* PM-10 measurements began in 1988

While the number of cities that are not meeting the air quality standards has decreased, there are still over 79 million people living in counties with air quality levels that violate the health-based ozone and PM-10 standard. On-road vehicles are a major source of the pollutants that form the nation's most widespread and intractable pollution problem--ground level ozone, which is also called smog.

In a typical urban area, highway vehicles emit 27 percent of the volatile organic compounds and over 35 percent of the nitrogen oxides--the two principle components of smog (Figure 1). While we have made tremendous progress in reducing ambient levels of carbon monoxide, another

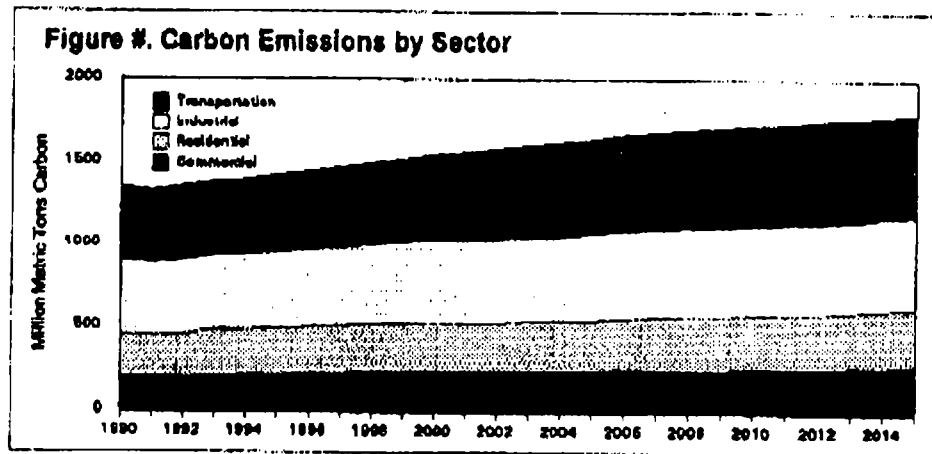
Figure 1. 1995 NOx and VOC Emissions



vehicle pollutant, there are still areas that do not meet this health-based standard and highways vehicles are responsible for 60 to 90 percent of carbon monoxide pollution. Another pollutant, referred to as particulate matter, is generated in several ways, one of which is in the exhaust of

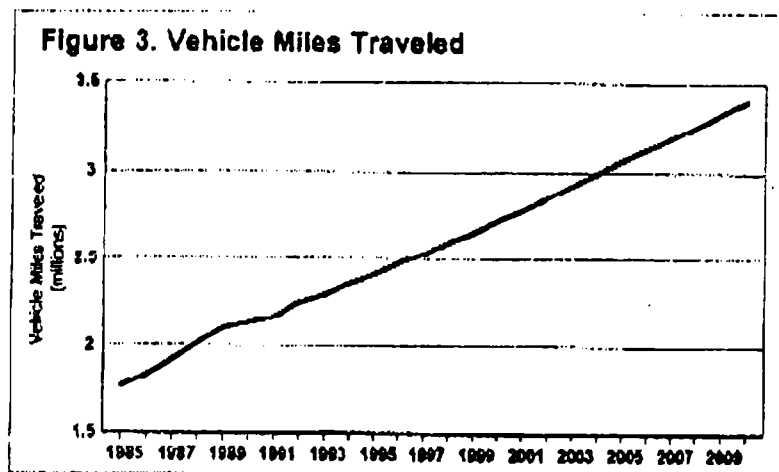
diesel-powered trucks and buses.

Global climate change is also an important environmental concern. Transportation accounted for nearly one-third of all anthropogenic greenhouse gas emissions from the U.S. in 1990 and the transportation sector is expected to have the fastest growth in greenhouse gas emissions of any part of the US economy during this decade (Figure 2). An international consortium of scientists has recently concluded that



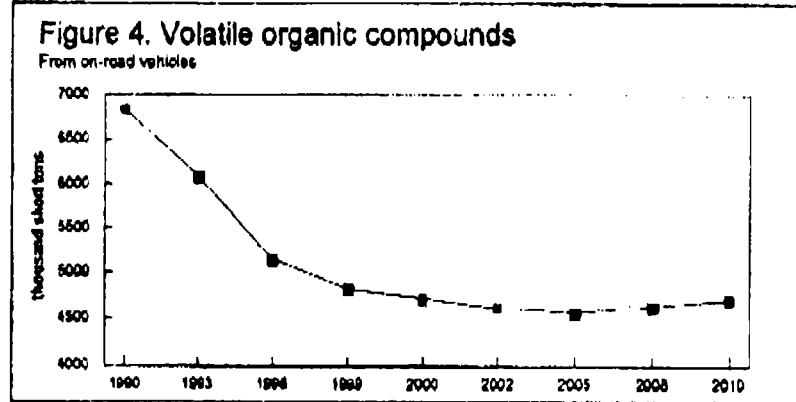
human-induced climate change has begun. The 1996 report of the Intergovernmental Panel on Global Climate Change expressed a scientific consensus that man-made "greenhouse gases" are building up in the Earth's atmosphere, and that the temperature of the atmosphere is increasing as a result. Scientists believe that it will be enough to cause sea levels to rise, although the precise timing of when this might happen is unclear.

One of the reasons why we have not realized all the benefits of our clean air programs over the past 25 years is that the number of total vehicle miles traveled keeps growing every year (Figure 3). The emissions reductions derived from end-of-pipe control technologies on cars and trucks have been undermined by steady and ongoing increases in the number of vehicle miles



traveled. In 1970, Americans drove their vehicles about 1.1 trillion miles; by the end of 1995, VMT had more than doubled to over 2.4 trillion miles. Increases in VMT have been especially rapid in America's cities and surrounding suburbs, where typical patterns of economic development have caused millions of commuters to drive more miles between their homes, their jobs, and the typical activities of their daily lives.

With more vehicles on U.S. roads driving more miles, we need to look for more innovative ways to reduce overall emissions. Between now and 2010, more widespread use of better catalysts and cleaner fuels will not reduce vehicle-related emissions much further. Just after the turn of the century, however, increases in vehicle miles traveled would begin to slowly cause total vehicle emissions to increase (Figure 4).



Such a scenario is not inevitable. Wise decisions on the part of state, local and federal officials and active involvement by the public will assure that the tremendous accomplishments in air quality improvements will be fully realized and new cost effective emission reduction programs can be identified. Obviously, the interaction between transportation policy and air quality planning is critical in our future efforts. And, until the passage of the Clean Air Act in 1990 and ISTEA in 1991, there was no comprehensive framework for assuring air quality impacts were considered as an integral part of transportation planning.

NEXTEA and CMAQ

In 1994, the Department of Transportation, in cooperation with the Environmental Protection Agency (EPA), conducted a review of the first three years of CMAQ program activities to determine ways for us to administratively streamline this program. We held 70 meetings in 10 States, meeting with MPOs, State and local government representatives, State departments of transportation and air quality agencies, and public and private interest groups. The overall response to ISTEA has been enthusiastic. We have also listened to the public, and heard what they want from their transportation systems. Obviously, they want mobility and accessibility. And they want to protect the environment. They also want a transportation system that encourages a sense of community, not one that divides neighborhoods and leaves them with driving as the only option to get the goods and services they need.

[Insert section here on results of CMAQ analysis]

Under NEXTEA, we will build on this success. As envisioned under ISTEA, the CMAQ program demonstrates that flexibility is a better approach to the funding of transportation projects and programs and that transportation can contribute to improved air quality. Now, some 5 1/2 years later, the CMAQ program is no longer an experiment. The program's flexibility and innovation have been key to its success, and the Department proposes an increase in the CMAQ program funding authorization from \$1.029 billion annually to \$1.3 billion, an increase of 30

percent. We also propose to expand CMAQ funding eligibility to:

- **Maintenance areas:** We are proposing to provide funds on the basis of a State's maintenance, as well as nonattainment area, populations.
- **PM areas:** The original CMAQ provisions were silent on the use of funds in nonattainment areas for particulate matter (PM). The apportionment formula has been modified and eligibility made explicit to include PM areas.
- **New nonattainment areas designated under the revised air quality standards:** With EPA's proposal to revise the national ambient air quality standards, the Department recognizes the need to extend funding to any areas newly designated under the new standards.
- **Therefore, we propose that CMAQ funds be available to these areas after a State has submitted its implementation plan addressing the new standards to EPA.**

Another hallmark of the CMAQ program and flexible funding has been the equal treatment of eligible projects. Our reauthorization proposal for CMAQ would build on this.

- **Operating Assistance:** We propose to delete the specific provisions covering operating assistance on traffic management and control projects to provide the same 3-year period of funding eligibility for all projects requesting operating assistance. Our proposed amendment would put traffic management and control projects on a level playing field with transit and other projects receiving operating assistance under the CMAQ program.
- **TCM Funding Flexibility:** ISTEA excludes from CMAQ funding two transportation control measures listed in the Clean Air Act--extreme cold starts and vehicle scrappage. Under the DOT proposal, programs to reduce extreme cold starts, where the majority of emissions are generated, would be eligible for CMAQ ends. Scrappage or "buy back" programs for high polluting vehicles would also be eligible. Rather than requiring States to use CMAQ funds for these two transportation control measures, our proposal simply gives States the added flexibility to fund them if they choose to.



U.S. Department of Transportation
Federal Highway Administration

*Document

2*

FACSIMILE TRANSMISSION

Office of Environment and Planning
Environmental Analysis Division
(HEP-40)

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Date: APR 22 1997

This sheet and 3 pages

TO: Name: Diane Montgomery

Organization: _____

Fax Number: 395-4797

Phone Number: _____

FROM: Name: Nike Savonis

REMARKS:

**NEXTEA ENVIRONMENTAL ASPECTS
BENEFITS OF THE CMAQ PROGRAM
PROPOSED APPROACH**

FHWA, 4/14/97

Overall Message:

As a critical element in Federal, State and local partnership to improve air quality, the CMAQ program has been a very successful environmental program under ISTEA. It has: 1) delivered important air quality improvements; 2) improved quality of life through flexible funding; and 3) encouraged a more open process for all Federal-aid programs to fund environmentally friendly projects.

CMAQ is a Critical Part of the Federal Partnership

Points for development

- The Federal government has set clean air standards to protect the health and well-being of the american public.
- Despite improvements in air quality, many areas still face significant challenges before they reach attainment. Transportation represents about one-third of the problem.
- As noted in congressional testimony by the US Conference of Mayors, it is critical that the Federal government be a full partner in the effort to achieve clean air if it is to set standards and requirements.
- CMAQ directs funds to the areas that need it. The City of Los Angeles, the largest single recipient of CMAQ funding, has received over \$290 million to reduce transportation-related emissions. *Check*
- CMAQ funding has proved to be a popular program for the rest of the Nation, too. Spending rates have been robust:

1992	\$340 million
1993	\$600 million
1994	\$815 million
1995	\$950 million
1996	\$939 million

CMAQ's Provides Important Air Quality Benefits

Points for development

- Though CMAQ funding represents only 5% of all Federal-aid funds, and affects only a

small portion of the total national transportation infrastructure, it has helped to reduce emissions and improve air quality.

- Total AQ benefits (to be developed with EPA)
- The air quality needs of many nonattainment areas are much greater than what CMAQ can address but some projects funded under CMAQ yield very significant benefits. For example, the State of Indiana estimates that its CMAQ-funded Inspection and maintenance program can reduce hydrocarbon emissions by 7.5 tons per day and carbon monoxide by almost 9 tons per day! Other States, like New Jersey, Wisconsin, Maine and Delaware, expect similar emission reductions from their I/M programs, ranging from 2 tons per day to more than 20 tons per day.
- While leveraging substantial private involvement in the effort to improve air quality, many states have used CMAQ funding to convert their publicly owned fleets to alternative fuels. Over \$290 million in CMAQ funding has been used for alternative fuels. In a large metropolitan area, the emission reductions of converting bus fleets to alternative fuels can amount to over 9 tons per day.

CMAQ funding has provided flexible funding to meet differing needs and improve quality of life

Points for development

- ISTEA was landmark legislation by providing for "flexible funding" or letting areas decide what transportation improvements work for them.
- CMAQ has been ISTEA's most flexible program. Over 54% of all "flexible" funding used for transit purposes has come from the CMAQ program, despite its relatively small size. Over \$1.3 billion has gone for transit improvements.
- CMAQ's flexibility has been consistent; about 47% of all CMAQ funds have gone for transit purposes; 31% have improved the flow of traffic; and about 10% have been used for ridesharing, demand management, bicycle and pedestrian improvements.
- APTA has testified that "the ability to fund innovative projects that improve the overall transportation system's effectiveness is one of CMAQ's most significant contributions."
- This flexibility has provided for multiple benefits in addition to improving air quality. Congestion has been relieved, and bicycle and pedestrian improvements make life more comfortable.
- ISTEA promotes intermodalism; and CMAQ funding has been the most significant source of Federal funds for intermodal freight services. By easing the movement of freight, CMAQ not only removes truck trips and improves air quality, it also assists our

nation's economic development. About \$21 million in CMAQ funding has leveraged \$41 million in other investment to fund freight rail projects in 5 States.

The CMAQ program has also fostered a more open process to fund environmentally-friendly projects

Points for development

- ISTEA envisioned a much more open process than did the previous legislation so that projects could compete on their merits, including environmental considerations.
- The CMAQ program has shown that a much more open process does yield a better product. New players are at the table in places like Chicago, where the Chicagoland Bicycle Federation has been very successful at funding projects, and in the Puget Sound area where the Microsoft corporation assisted in the development of bicycle paths.
- In Dallas Texas, a "blind" evaluation with regard to the project sponsors was conducted for CMAQ funding to insure that only the best projects were funded.
- In NY, the transportation coordinating council reports that CMAQ participants included freight, port, airport, and highway interests, as well as environmental and community advocates.
- In many cases such as the Del Valley Regional Planning Commission, CMAQ provided the impetus for developing planning tools which further formalized local decision making.

THE EMISSIONS REDUCTION POTENTIAL OF THE CMAQ PROGRAM--SUMMARY

APPROACH

- Data for this exercise came from estimates of emissions benefits and funding obligations reported by the states to the Federal Highway Administration (FHWA) and published in FHWA's CMAQ Program Annual Report for FY 1994.¹
- Cost-effectiveness, measured in dollars per annual ton emission reduced, were generated for each project type (traffic flow, transit, shared ride, demand management, bike/pedestrian, and I/M and other) at the 70th, 80th, and 90th percentiles. At the 70th percentile this means that 30% of the projects were more cost-effective, and 70% were less cost-effective. Cost-effectiveness estimates were adjusted to reflect multiple years of benefits, e.g., a transit project lasts an average of 8.5 years.
- Total emission reductions were then estimated by dividing CMAQ expenditures (\$1.3 billion, adjusted for inflation) by cost-effectiveness. We assumed the distribution of project types would remain the same.

KEY CONCLUSIONS

- The estimated emissions reduction resulting from the overall CMAQ program is sensitive to assumptions about the cost-effectiveness of projects. There is a large range in the estimated cost-effectiveness of CMAQ projects funded in FY 1994. These data suggest that there is potential for significant advances in the cost-effectiveness of typical projects as states become more adept at using CMAQ-funds effectively.
- Although estimates cover a wide range, the reported data coupled with the assumptions documented here suggest that the CMAQ program could reduce national emissions of pollutants significantly. At the 70th percentile, CMAQ could reduce each year 391,550 tons of VOC, 2,135,378 tons of CO, 652,223 tons of NO_x, and 367,028 tons of PM-10 in 2003. These estimates assume that projects have multiple year effects and that they achieve improved cost-effectiveness compared to 1994 projects.
- These estimated national emissions benefits suggest that the CMAQ program could have a significant effect in improving urban air quality. Since states are expected to target CMAQ funds toward projects that help them meet attainment, emissions reductions would be proportionally larger in non-attainment and maintenance areas. Further analysis of specific metropolitan areas is being undertaken to quantify effectiveness in helping to meet NAAQS attainment status.

¹ Federal Highway Administration. "The Congestion Mitigation and Air Quality Improvement Program: A Summary of Third Year Activities (FY 1994)." December 1995. (As of the date of this analysis, the FY 1995 report has not been released.)

Summary of Senate EPW Hearing on NEXTEA

Diane R. Montgomery

03/20/97 09:27:26

AM

Record Type: Non-Record

To: Kenneth L. Schwartz/OMB/EOP, David E. Tornquist/OMB/EOP

cc: See the distribution list at the bottom of this message

Subject: Notes on Senate EPW NEXTEA Environment/Planning Hearing, 3/19

The Senate Environment and Public Works Committee held a hearing today to discuss environmental and planning issues associated with the reauthorization of ISTEA. Senators Chafee (R-RI), Warner (R-VA), Inhofe (R-OK), Thomas (R-WY), Allard (R-CO), Baucus (D-MT), Reid (D-NV), Graham (D-FL), and Boxer (D-CA) attended the hearing.

Jane Garvey, Acting Deputy Administrator, represented the Federal Highway Administration (FHWA) and David Gardiner, Assistant Administrator, represented the Environmental Protection Agency (EPA).

In addition to hearing Jane and David's testimony, the Committee heard from a panel of experts on environmental issues and a panel on planning issues. The environmental panel included Thomas Walker (American Road and Transportation Builders Association), Hal Hiemstra (Rails-to-Trails Conservancy), Meg Maguire (Scenic America), Hank Dittmar (Surface Transportation Policy Project), and Leon Kenison (New Hampshire Department of Transportation). The planning panel included Michael Cook (Douglas County, Colorado Board of Commissioners), Guillermo Vidal (Colorado Department of Transportation), Timothy Stowe (American Consulting Engineers Council), and Lawrence Dahms (Metropolitan Transportation Commission).

In general, the hearing was cordial. However, the Senators pressed FHWA and EPA several times on the benefits of the Congestion Mitigation and Air Quality Improvement (CMAQ) program. I should note that the EPA and FHWA presented a very united and cohesive front in support of the Administration's NEXTEA proposal.

The following is a summary of the major issues raised during the hearing:

- Effectiveness of the CMAQ Program
- Planning Factors
- Enhancements Program
- Recreational Trails, Rails-to-Trails, and Scenic By-ways
- Streamlining Project Environmental Approval Process

CMAQ Program

By far, most of the questions from the Committee focused on the effectiveness of the CMAQ program. Senator Baucus, in particular, asked particularly pointed questions, including whether the funding for CMAQ would be better spent on research to improve on-board vehicle technologies to reduce emissions rather than on questionable congestion mitigation projects. Senator Inhofe suggested that the CMAQ program should be eliminated because emissions were declining. Senators Warner and Baucus were concerned that CMAQ funds were not particularly helpful in rural air quality non-attainment areas because these areas have limited transportation alternatives to the automobile. Senator Thomas was interested in the increased cost associated with the addition of new non-attainment areas as a result of the proposed new air regulations to be announced later this year.

The Senators collectively pushed EPA and DOT to provide "hard data" showing evidence of the CMAQ program's benefits. While many of the Senators questioned the effectiveness of this program in reducing congestion and improving air quality, Senator Chafee articulated his continued support of the program.

I think it is noteworthy to mention that many of the toughest questions came from Democratic Senators. In a conversation with EPA staff this afternoon, the EPA mentioned to me that the Minority Committee staff had indicated to EPA that the Senators were participating in a bit of "grandstanding" in an effort to mobilize the environmental groups to articulate their support for the CMAQ program to Congress.

Planning

Jane kicked off her testimony by stating that the State and Metropolitan Planning Organization (MPO) planning factors would be streamlined to 7 broad goals, offering States and MPOs flexibility. She also mentioned the addition of freight as a player in the planning process. The Douglas County Board of Commissioners called for reforms in the MPO planning process to lighten the burden on "bedroom" communities such as Douglas County, which is outside of Denver. Specifically, Douglas County asked for a lower redesignation threshold, the opportunity for withdrawal from an MPO, a reduction in the power of central cities on the MPO, and a less restrictive requirement for MPO consultation with other jurisdictions. Douglas County endorsed HR 477, the Local Transportation Decision-making Reform Act, which includes these proposals for MPO/planning reform.

The Senators seemed most concerned about the fiscal constraint component, which requires States to show that they have funds for transportation (mainly highway) projects before they put such projects on their State transportation plans. The fiscal constraint requirement was hailed as one of ISTEA's most important successes because it placed highway and transit projects on a more equal footing. The American Association of Road and Transportation Builders Association and the New Hampshire Department of Transportation suggested that the fiscal constraint provision be repealed.

Enhancements

Several Senators argued that Enhancements projects should be a State choice and that the 10% set-aside on the Surface Transportation Program (STP) is unnecessary. Jane's response was that DOT and the Administration considered removing the set-aside, but it was decided to continue the program for at least the NEXTEA period to allow it time to become more firmly grounded in transportation policy. Senator Chafee asked Jane to encourage environmental groups to invite Congressional members to more "ribbon-cutting" ceremonies. The New Hampshire Department of Transportation suggested that Enhancements be funded as grants to reduce overhead costs.

Recreational Trails, Rails-to-Trails, and Scenic By-ways

Senator Reid voiced concern regarding the Administration's proposal to cut funding for the Recreational Trails program from \$15 million in FY97 to \$7 million in FY98. Jane pointed out that funding for the Recreational Trails program could be accommodated through the increase in Enhancements funding. Senator Warner voiced his support for the Rails-to-Trails program. Scenic American asked for tighter provisions against outdoor billboard advertising than those currently in the Highway Beautification Act.

Streamlining Project Environmental Approval Process

Several Senators voiced frustration with the lengthy environmental approval process. Senator Warner, in particular, questioned whether the Major Investment Studies (MIS) and Environmental Impact Statement (EIS) processes were duplicative. Jane noted that the MIS and EIS processes could be accomplished in tandem rather than on separate time-intensive tracks. Jane also mentioned that FHWA and EPA are working on a report outlining recommendation to streamline the project approval process. The recommendations include: 1) bringing environmental reviewers

into the project approval process sooner, 2) ensuring that environmental reviews and permitting are completed simultaneously not sequentially, 3) assigning lead agencies on projects during the approval phase, and 4) decentralizing some components of the environmental reviews which are normally approved by FHWA headquarters to the FHWA field offices.

The American Consulting Engineers Council (ACEC) called for the formation of an interagency environmental council in each State (funded through the Highway Trust Fund) to serve as a central agency for the approval/disapproval of environmental documents. The ACEC suggested that incentives should be established to encourage the interagency council to complete environmental reviews in a timely manner.

Message Copied To:

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PERFORMANCE MEASURES AND TRANSPORTATION

A NATIONAL GOAL FOR THE INTERSTATE SYSTEM

A specific national goal for the condition of the Interstate system should be established. Any state that allows more than one-half of its interstate mileage to fall below "fair" condition should be required to spend some of its federal highway funds to improve the condition of these highways. In addition, states that do particularly well in maintaining their interstate systems should be rewarded with grants from a bonus fund reserved from the overall federal highway program. These two concepts -- requiring those who fall below a minimum standard of acceptability to do better, and rewarding those who perform the best -- provide a solid framework for performance-based management of an important piece of the nation's transportation system.

Performance Measures

The traditional method of assuring that national transportation goals are pursued has been to direct money to specific activities. This method has proven its worth over the last 15 years in the Interstate Maintenance and Bridge programs; the condition of Interstates and bridges, which got steadily worse before these programs were established, has improved for most of the last decade. Targeting of funds to important activities is effective and appropriate, and the programs that do this -- the Bridge, Interstate Maintenance, Safety, Air Quality and Transportation Enhancements programs -- should be continued.

ISTEA included a less direct method of pursuing federal interests. Its system of enhanced planning directs the attention of state and local officials who control federal money to matters of national interest -- energy conservation, safety, etc., -- while allowing broad discretion in final spending decisions. This planning process is a good forum for balancing national, regional and local priorities, and should be also continued. Nevertheless, its open-ended nature allows states and localities to ignore national needs if they choose.

ISTEA II can inaugurate a new method of assuring attention to national goals while still allowing flexibility. This memo describes one example: a specific goal for the condition of the Interstate system, together with incentives for good performance and a required remedy for poor performance.

The Interstate System

The United States has 44,000 miles of Interstate highways. They were built by the states and are owned by the states, but were paid for almost entirely with federal money, generally on a 90 percent federal/10 percent state basis. Since 1956, the federal government has spent the equivalent of nearly \$300 million of today's dollars to build this system.

In spite of recent improvements in the condition of the Interstates, many parts of the system are in bad shape. However, the problem is not ubiquitous -- there are great disparities between the states. The portion of the system in worse than "fair" condition in 1994 ranged from under 2 percent (Maine, Alabama, Georgia and New Hampshire) to over 70 percent (Texas, Arkansas, Wyoming, Minnesota and the District of Columbia.)¹ See attachment 1 for complete rankings.

This variability has many causes. The funds targeted by ISTEA for interstate maintenance are not enough to bring these roads up to an acceptable standard in every state, although they are sufficient in many states. More funding could be put into the Interstate Maintenance program, but this is not an efficient way of solving the problem. The formula that divides these funds among the states is based on the extent and usage of the system, but does not consider its current condition. Putting more money into the program will send significant resources to states where problems are minor, and not enough where needs are greatest.

Two things need to occur. First, funds should be directed to states where conditions are poorest, and second, a system of incentives should be established to encourage continuing improvement in all states.

The Proposal

A national performance indicator for the condition of the interstate system should be established, consisting of the percent of interstate miles within each state in less than fair condition. Ratings would be updated annually on the basis of the ongoing measurements of pavement condition made by state DOTs and tracked by FHWA. Each year, the 5 states with the best condition rating would receive \$30 million each in flexible funds as a reward. These funds could be spent on any transportation program. In addition, beginning in the third year of the new program, the 5 states registering the greatest improvement over the preceding 3 years would also receive \$30 million each. At the other end of the scale, states with more than half of their interstate miles in worse than "fair" condition would have 25 percent of their National Highway System funds restricted to interstate maintenance projects activities until they reach the national goal. In 1994, the latest year for which we have data, 10 states and the District of Columbia fell into this category.

This program would be based entirely on performance. States that perform well would be rewarded for their efforts. Those that perform poorly would be asked to do better, with federal funds covering the cost. This proposal can be part of a new system of policy making that measures performance and controls funds accordingly.

- Attachments:
1. Interstate pavement conditions by state
 2. The PSR scale for rating pavement condition

¹ The Federal Highway Administration describes pavement condition according to a "pavement serviceability rating" on the following scale: Very Good, Good, Fair, Mediocre and Poor. See attachment 2 for further information.

Questions & Answers About the “Fix It First” Program

Why Reward Overall Condition and Improvement? If only overall condition is rewarded, states below the top tier will feel little incentive to invest in improving conditions. On the other hand, rewarding only improvement gives all states an incentive to make progress, but those that have done a good job in the past will be no better off than those that have done a poor job. By rewarding both overall condition and improvement, both current and past responsible behavior are recognized.

Why the Interstates? Why not the National Highway System? A national goal for the condition of the Interstate system is preferable to one for the NHS for several reasons. First, the direct federal interest in the Interstates system is greater than in the NHS. Some NHS roads were built with state funds, and it would be difficult for the federal government to hold states accountable for their condition. The Interstate system was built with 90 percent federal money, and the national interest in its condition is undisputed.

Second, the condition of the NHS is not actually measured. It is derived through sampling -- the condition of certain routes is measured, and these results are extrapolated to the overall system. It would be problematic to give out money on the basis of estimates, and having the states measure the condition of the entire 160,000-mile system would be costly. By contrast, the condition of the entire interstate system is already measured according to a well established protocol.

Finally, a federal commitment to maintain the entire NHS is not affordable. Even at its original proposed size of 150,000 miles, it was doubtful whether money was available to do this. In 1991, USDOT proposed to achieve this goal by setting the state share for NHS projects at 25 percent instead of the current 20 percent, and by requiring most federal dollars to be spent on the NHS. Both ideas were rejected in 1991 and are unlikely to be embraced in 1997. Even if they were, expansion of the NHS to over 160,000 miles has made a commitment to its condition even more unrealistic. By contrast, bringing the Interstate system up to acceptable condition is achievable within current resources without significantly hampering the pursuit of other goals. The remedy we propose for poorly performing states -- restriction of one-fourth of NHS funds to interstate maintenance projects -- is a mild intervention given the importance of the problem.

Why rank states by “less than fair” condition? Several measures of the condition of a state’s interstate highways are possible, including a composite figure for the average condition of a state’s mileage, or the portion of the system in top shape. The “less than fair” measure is best because of the concept it expresses, i.e., acceptable condition vs. unacceptable condition. It’s not necessary for the federal government to intervene as long as most of a state’s routes meet a minimum standard of acceptability, i.e., Fair condition or better. But if more than half of a state’s mileage falls below Fair condition, the federal government has a responsibility to act.

Rankings of States
(in descending order)

State	% Interstates In Poor and Med. Condition	State	% NHS In Poor Condition ¹
Dist. of Col.	91.67%	Dist. of Col.	56.36%
Minnesota	78.45%	Rhode Island	27.31%
Wyoming	76.91%	Minnesota	21.14%
Arkansas	75.33%	New York	16.36%
Texas	71.37%	Delaware	14.61%
South Dakota	62.83%	Maryland	13.45%
Delaware	58.54%	Alaska	13.33%
North Carolina	55.87%	Missouri	11.07%
Nebraska	55.60%	Michigan	10.20%
Alaska	55.16%	Illinois	10.00%
West Virginia	51.73%	Oklahoma	9.53%
Washington	49.54%	North Carolina	9.24%
Conn.	49.27%	Louisiana	8.36%
Florida	45.24%	Indiana	8.30%
Illinois	42.96%	New Mexico	8.13%
Colorado	42.14%	Penn.	7.00%
Kentucky	40.55%	Texas	6.89%
Penn.	39.97%	Nebraska	6.19%
Montana	39.31%	Wyoming	5.22%
Rhode Island	38.57%	Conn.	5.08%
North Dakota	37.83%	Virginia	5.02%
Idaho	37.64%	Colorado	5.01%
New Mexico	36.50%	Arkansas	4.97%
Mississippi	35.77%	Mississippi	4.58%
California	35.47%	Mass.	4.57%
Hawaii	31.03%	California	4.14%
Michigan	30.13%	Montana	3.95%
New York	29.23%	Wisconsin	3.75%
Virginia	27.94%	Vermont	3.58%
Iowa	27.81%	North Dakota	3.55%
Kansas	27.41%	Kansas	3.17%
Maryland	27.39%	Kentucky	3.03%
Wisconsin	26.80%	South Dakota	2.94%
Louisiana	26.45%	Idaho	2.78%
Indiana	26.24%	Oregon	2.61%
Missouri	24.04%	Tennessee	2.18%
New Jersey	20.53%	Florida	2.13%
Tennessee	19.96%	Washington	2.01%
Oregon	19.53%	New Hamp.	1.80%
Oklahoma	19.48%	West Virginia	1.69%
Mass.	15.40%	Maine	1.65%
South Carolina	12.24%	Ohio	1.61%
Nevada	8.61%	South Carolina	1.13%
Arizona	7.10%	Alabama	0.98%
Ohio	5.34%	Arizona	0.76%
Utah	4.15%	Hawaii	0.74%
Vermont	2.81%	New Jersey	0.73%
Maine	1.62%	Iowa	0.65%
Alabama	1.33%	Nevada	0.20%
Georgia	0.40%	Georgia	0.07%
New Hamp.	0.00%	Utah	0.04%

Exhibit 4-17

Pavement Condition and Roughness Definitions*

Very Good New or almost new pavement, will not require improvement for some time.

PSR*	Interstate	≥ 4.0
	Other	≥ 4.0

IRI**	Interstate	< 60
	Other	< 60

Good In decent condition; will not require improvement in the near future.

PSR	Interstate	3.5 - 3.9
	Other	3.5 - 3.9

IRI	Interstate	60 - 94
	Other	60 - 94

Fair Will likely need improvement in the near future, but depends on traffic use.

PSR	Interstate	3.1 - 3.4
	Other	2.6 - 3.4

IRI	Interstate	95 - 119
	Other	95 - 170

Mediocre Needs improvement in the near future to preserve usability.

PSR	Interstate	2.6 - 3.0
	Other	2.1 - 2.5

IRI	Interstate	120 - 170
	Other	171 - 220

Poor Needs immediate improvement to restore serviceability.

PSR	Interstate	≤ 2.5
	Other	≤ 2.0

IRI	Interstate	> 170
	Other	> 220

Note: In many of the exhibits in this report the categories "Good" and "Very Good" are combined under the term "Good," as the pavement in both categories will not require improvement in the near future.

* PSR = Present Serviceability Rating

** IRI = International Roughness Index

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KEEPING THE "E" IN ISTE

Transportation Energy and the Federal Role in Conservation

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May 1996

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KEEPING THE "E" IN ISTEA

Transportation Energy and the Federal Role in Conservation

EXECUTIVE SUMMARY

One of the most important tasks facing the upcoming Congressional review of the Intermodal Surface Transportation Efficiency Act (ISTEA) is defining the federal role in U.S. transportation policy. The current ISTEA reflects the view of Congress in 1991, when this innovative statute was enacted, that transportation policy should be a partnership undertaking, with standards, goals and procedures set at the federal level but choices about how to meet nationally important objectives made at the local and state levels. The current ISTEA also reflects a prominence for energy efficiency concerns, among others, in transportation planning and investment. These strategies, and the statutory provisions that support them, must be maintained. Indeed, our nation's energy security, and our planet's health, depend on it.

Transportation accounts for a staggering two-thirds of U.S. oil consumption. According to the Congressional Office of Technology Assessment, the average American citizen uses five times as much energy for transportation as the average Japanese and nearly three times as much as the average citizen of western Europe. Moreover, transportation energy use is growing fast, at a rate of about 2.6 percent per year in the 1980s. Average new car fuel economy has been declining since 1987, and miles of passenger travel have been growing over four times faster than the driving-age population.

This portends major consequences for American foreign policy. Already, we import nearly half of our annual oil consumption, and the proportion is projected to climb to nearly 60 percent in ten years. Most of the increase will be supplied by the OPEC nations of the Persian Gulf, leaving the U.S. vulnerable to price shocks and other consequences due to political uncertainty in that region. Unfortunately, we cannot blast and drill our way out of this problem; even if the Arctic National Wildlife Refuge, for example, were opened to oil development, America's petroleum supply would be extended by only 200 days.

Our energy-intensive transportation habits also threaten planetary health. Because of fossil fuel combustion and resultant carbon dioxide emissions, the mean surface air temperature of the earth has been increasing and is expected to increase an additional 2° C. or more in the next century. Consequences may include substantial sea level rise, flooding, spread of malaria and other tropical diseases, migration of populations, and major ecosystem changes.

In this context, increased energy efficiency is an imperative. Efficient transportation planning and investment must be part of the solution, but local communities and states cannot be expected to make decisions on their own to alleviate national or international problems that do not have immediate local consequences. We need clear leadership and guidance from

the federal government with direction, incentives and funding programs that will link local decisions to collective national needs and strategies. Recent polling data indicate strong public support for federal energy conservation and environmental protection programs.

ISTEA establishes a sound, nonregulatory framework for local innovation in transportation efficiency. The law sets a number of energy efficiency goals for our nation's transportation system and establishes a sensible planning system for addressing them. It also promotes efficiency by requiring that planning be based on realistic budgetary assumptions and thorough economic analysis. It allows communities and states a large measure of flexibility in drawing upon federal funds to assist local priorities, but assures that at least some investments are made consistent with energy and environmental objectives by setting aside modest portions of overall federal assistance for these purposes.

ISTEA's partnership approach is working. Communities have begun to adopt innovative planning processes to meet efficiency goals. The law's funding mechanisms are being applied to support improvements in important local transportation management concerns such as intermodal freight connections, automobile traffic flow, and commuter travel. Indeed, ISTEA is gaining recognition as a model of new-generation government for the twenty-first century. It is important that the reauthorization stay the course to assure that we continue down this path.

At the same time, the reauthorization should consider a number of improvements to strengthen the law's efficiency-enhancing potential. These changes should retain local and state implementation flexibility but strengthen the incentives for improved performance in meeting national goals.

In the end, ISTEA can be only a component, not a panacea, in our national energy policy. We must improve the efficiency of vehicles as well as provide choices that reduce automobile dependence. We must conserve energy in sectors other than transportation. But ISTEA's role in a comprehensive strategy is critical, and rolling back any of the law's efficiency-promoting features would be a disaster. Instead, the reauthorization should maintain a strong federal leadership role in the transportation efficiency partnership. Let's keep the "E" in ISTEA.

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KEEPING THE "E" IN ISTEA

Transportation Energy and the Federal Role in Conservation

Energy conservation has become a forgotten topic in the emerging national discourse surrounding the reauthorization of our basic federal transportation law, the Intermodal Surface Transportation Efficiency Act (ISTEA). This is a mistake, because inefficient transportation patterns are contributing mightily to our nation's growing appetite for foreign oil and to consumption-related emissions of greenhouse gases. Although many of the solutions must lie in locally chosen efficiency strategies, it is critical that the federal government retain a strong role in setting goals and benchmarks, creating incentives, and providing targeted funding assistance for local jurisdictions.

The marriage of locally chosen strategies to national efficiency goals was exactly the approach chosen by the bipartisan consensus that produced ISTEA in 1991. For the law's reauthorization, it is important that this approach be continued and strengthened. ISTEA alone cannot solve our energy problems, but its nonregulatory safeguards and efficiency-enhancing funding mechanisms remain a key component of the overall solution.¹

I. DRAINING THE TANK: TRANSPORTATION AND ENERGY CONSUMPTION IN THE UNITED STATES

Recent decades have brought significant improvement in the fuel efficiency of individual cars and other vehicles, but this improvement has failed to stem overall growth in U.S. consumption of energy for transportation. Unfortunately, current trends indicate that transportation energy use will continue to grow faster than the population and that the position of the U.S. as the world's worst gas guzzler is likely to remain firm for the

¹ Valuable assistance in producing this paper was provided by Stacey Justus, John De Cicco, Allen Greenberg, Doug Howell, Dan Lashof, Heather Andersen and Don Chen. The conclusions are those of the author.

foreseeable future. This is due mostly to our growing reliance on driving alone -- and the lack of safe, convenient and reliable alternatives in most instances -- to conduct our daily business.

A. Oil and transportation

Transportation is by far the largest consumer of petroleum products in the United States, accounting for some two-thirds of overall oil consumption.² As of 1994, the U.S. used around eleven million barrels of oil each day to support our transportation habits.³ Slightly more than half of U.S. transportation energy is consumed by light vehicles, including automobiles, pickup trucks, utility vehicles and vans, with freight trucks accounting for another 23 percent.⁴ Transportation alone consumes more oil than the United States produces, and also more oil than we import, each year.⁵

² Energy Information Administration, Annual Energy Outlook 1996 (DOE/EIA - 0383 (96)) 48 (January 1996). Other recent sources have put the share as high as 72 percent. See Stacy C. Davis and Patricia S. Hu, Oak Ridge National Lab., Transportation Energy Data Book 3-3 (1991).

³ Annual Energy Outlook, *supra*, 74. In the AEO, energy uses are expressed in heat content, or British Thermal Units (Btu's). In 1994, transportation uses accounted for 22.66 quadrillion Btu's ("quads") of petroleum consumption. The Energy Department's standard conversion factors are 5.8 million Btu per barrel for crude oil consumption and 5.253 million Btu per barrel for motor gasoline. *Id.* at 269 (Appendix I).

⁴ Office of Technology Assessment (OTA), Saving Energy in U.S. Transportation (Summary) 7-8 (1994).

⁵ The U.S. produces 14.1 quads of crude oil domestically each year. Net imports amount to 17.25 quads annually. Annual Energy Outlook, *supra*, 70. See also OTA, *supra*, 2.

B. A comparison with other countries

Our abundant appetite for oil to fuel transportation is uniquely American, at least as a matter of degree. Indeed, the average American citizen uses five times as much energy for transportation as the average Japanese and nearly three times as much as the average citizen of western Europe.⁶ The United States consumes more than one third of the world's transportation energy, even though we account for only 4.7 percent of the world's population and less than one fourth of its combined gross product.⁷

Our appetite for oil is due substantially to our appetite for travel. The average American undertakes the highest level of personal travel (13,500 miles per person, including nondrivers, per year) and owns the most vehicles (0.6 per person and 1.07 per licensed driver), in the world. And, when we do travel, we overwhelmingly choose -- or are forced to choose -- to drive. Our typical new suburban household owns 2.2 cars, generates 12 auto trips per day, and drives 31,300 miles per year.⁸ Americans take some 86 percent of our trips by car, as compared to eight percent by walking, three percent by bicycle and about three percent by public transit.⁹

⁶ OTA, supra, 1, 10.

⁷ Id. 1-2; Environment and Energy Study Institute Fact Sheet, "Oil and Transportation," cited in Getting There (Washington, D.C.: The Advocacy Institute) 14, 30 (1996).

⁸ OTA, supra, 3,5. Peter Calthorpe, The Next American Metropolis 47-48 (1993).

⁹ Id. The 1990 Nationwide Personal Transportation Survey (NPTS) reported that transit accounts for only two percent of all trips and 2.5 percent of all passenger miles. The survey indicates also, however, that transit use is substantially higher in urban areas, especially in the northeastern United States. 1990 NPTS, Travel Behavior Issues In the 90's (U.S. DOT: Federal Highway Administration, Office of Highway Information Management) 17-25 (1992).

Europeans, by contrast, travel only about half as much (in miles per capita per year) as Americans and, when they do, are far more likely to choose alternative modes.¹⁰ This is due to a number of factors, among them the prevalence of walkable neighborhoods, superior transit and rail systems, and a high degree of coordination between public transit and land use planning in Europe. In European communities, auto use generally accounts for between 10 percent and 48 percent of all trips; transit accounts for between 11 percent and 26 percent; and walking and bicycling constitute from 33 percent to 50 percent of the total.¹¹ Even in Canada, where travel characteristics might be expected to mirror those of the U.S., citizens are five times more likely than their American counterparts to choose public transit over driving.¹²

C. A worsening situation

Under all foreseeable scenarios, U.S. energy consumption for transportation will increase in future years. One of the most conservative forecasts is that of the Department of Energy's Information Administration, which projects that transportation energy consumption will grow some 30 percent by 2015. This includes a 0.6 percent average annual growth in gasoline consumption and a 1.6 percent average annual growth in consumption of diesel and other distillate fuels.¹³

¹⁰ See OTA, supra, at 10-11.

¹¹ Calthorpe, supra, 47. OTA reports that mass transit claims a 15 percent overall modal share, measured as a percentage of passenger miles, in Europe. The differences between Europe and the U.S. with respect to per capita travel and automobile use are shrinking somewhat; because of cultural and behavioral differences, however, European levels of per capita travel and energy consumption are expected to remain significantly below those of the U.S. OTA, supra, 10-11.

¹² Public transit claims a fifteen percent share of Canadian travel. Calthorpe, supra, 47.

¹³ Annual Energy Outlook, supra, 23.

An increase of 30 percent over the next 20 years, especially when coupled with growth in energy use in other countries and other sectors of the economy, would contribute seriously to global economic and political insecurity and climate change. These consequences are discussed below in this paper. The reality may be much worse, unfortunately, because DOE's projections represent a rather rosy interpretation of current trends. In fact, transportation energy use has been growing at a much faster rate than that projected and, if unchecked with policy intervention, is likely to continue to do so over the forecast horizon. Actual transportation fuel consumption in the 1980s, for example, grew at an annual rate of about 2.6 percent per year, a rate over twice that projected by DOE.¹⁴ If continued, this would represent a growth of 67 percent over the next two decades.

There are two major reasons why transportation energy use may continue to grow faster than DOE asserts. First, the DOE projections were based on overly optimistic assumptions regarding improvements in vehicle technology. In particular, the projections assume that overall vehicle fuel efficiency will improve at a rate of around one percent per year throughout the forecast period.¹⁵ This is unlikely, given that the fuel economy boom of the late 1970s and early 1980s is over; average new car fuel economy actually has fallen since 1987, in part due to growing sales of larger, more powerful vehicles including light trucks and sport utility vehicles.¹⁶ DOE also assumed that California's pioneering program for the introduction of electric vehicles into the consumer market for automobiles would be implemented as scheduled beginning in 1998.¹⁷ The state has already announced its intention to delay the program.¹⁸

¹⁴ See D.L. Greene et al., Transportation Energy to the Year 2020, in National Transportation Board, National Research Council, A Look Ahead, Year 2020 (1988).

¹⁵ Id. 24.

¹⁶ OTA, supra, 9; Annual Energy Outlook, supra, 24.

¹⁷ Annual Energy Outlook, supra, 25.

¹⁸ As this paper is being written, it is unclear what effect the California delay will have on
(continued...)

Second, and most important, the DOE projections were based on the assumption that vehicle use, measured in vehicle miles traveled, will grow at an average rate of only 1.4 percent annually for cars and light trucks and 1.6 percent annually for truck freight.¹⁹ Actual miles of vehicle travel have been growing at much higher rates. In fact, from 1950-90, passenger vehicle miles traveled increased at a rate of 4.2 percent per year; from 1980-90, passenger vehicle miles traveled grew 4.7 percent per year, and total miles traveled by light duty vehicles grew at a staggering rate of 5.5 percent per year, nearly four times the rate of growth assumed by DOE.²⁰ Overall, DOT's Nationwide Personal Transportation Survey reported that vehicle miles traveled grew by 40 percent in only seven years, between 1983 and 1990.²¹

There are a number of troubling factors associated with this growth in vehicle use, all pointing to increased inefficiency in travel patterns. These include growth in the number of vehicle trips taken, a decline in all modes of travel other than single-occupancy driving, a decline in average vehicle occupancy, and growth in average vehicle trip length.²² The decrease in average vehicle occupancy alone, according to research from the Department of Energy's Oak Ridge National Laboratory, wiped out over half of the potential energy savings

¹⁸(...continued)

New York and Massachusetts, which also had elected to adopt the original California schedule, and for a larger thirteen-state northeastern region that has been negotiating with the federal Environmental Protection Agency over whether to apply the California program throughout the region.

¹⁹ Id. 23.

²⁰ Don Pickrell, Description of VMT Forecasting Procedure for "Car Talk" Baseline Forecasts (Volpe Center, U.S. Department of Transportation), Table 2. Annual Energy Outlook, supra, 24.

²¹ 1990 NPTS, supra, 11.

²² Id. 11-13.

from improved vehicle fuel economy from 1972 to 1992.²³ In the 1980s, vehicle miles traveled grew over four times faster than the driving-age population and many times faster than the population at large.²⁴

Because of expected changes in demographic and economic factors, most forecasters expect the growth in vehicle travel to slow somewhat, but not nearly as much as assumed by DOE. Research at DOT's Volpe Center projects that miles traveled will grow at a 2.7-3.0 percent annual rate throughout the 1990s and at an average annual rate of 2.2-2.7 percent between 1990 and 2030, depending on potential changes in population growth and vehicle fuel economy.²⁵ As the Congressional Office of Technology Assessment put it, "without substantial policy intervention, future rates of travel are quite likely to be higher and efficiency lower than [DOE] projects, with a resulting greater increase in transportation energy use than the projected levels."²⁶

II. THE FEDERAL ROLE: WHY WE NEED A STRATEGIC RESPONSE FROM OUR NATIONAL GOVERNMENT

Our dependence on driving more and consuming ever-increasing amounts of oil has important national and international consequences that must be addressed at the federal level of government. In particular, we are growing increasingly dependent on foreign oil suppliers

²³ D.L. Green and Y. Fan, Transportation Energy Trends, 1972-1992 (U.S. Department of Energy, Oak Ridge National Laboratory), Abstract, at vii (December 1994).

²⁴ Pickrell, supra, Table 2; NPTS 11,13.

²⁵ Pickrell, supra, Table 7.

²⁶ OTA, supra, 9. Although OTA's comment was based on the 1993 version of the Annual Energy Outlook, the assumptions and projections being criticized have not changed in material respects since then.

whose political and economic interests may not be congruent with ours. In addition, the evidence is solidifying that the current rate of emissions of atmospheric carbon presents an unsustainable course of climate change that could jeopardize human health and global ecosystems for centuries. The American public is rightfully concerned about these consequences and is looking to its federal government for leadership as we craft solutions to the problem.

A. Growing energy insecurity

In an April, 1996 cover story in The Atlantic Monthly, two DOE officials cite a string of quotations by Republican, conservative, and economic thinkers to the effect that present trends risk an international oil crisis of considerable magnitude. Former energy secretary Donald Hodel, who served under President Ronald Reagan, is quoted as saying that we are "sleepwalking into a disaster"; Irwin Stelzer of the American Enterprise Institute is reported to believe that the next oil shock "will make those of the 1970s seem trivial by comparison." The authors cite Robert Dole and Alan Greenspan as additional sources of high-level concern about oil security.²⁷

These leaders have ample reason for their worry. As of 1994, America was importing 45 percent of its annual oil consumption, already perilously close to the record high of 46 percent reached in 1977.²⁸ As noted above, transportation uses alone claim more oil (22.66 quadrillion BTU per year) than we currently import (17.25 quadrillion BTU).²⁹

²⁷ Joseph J. Romm and Charles B. Curtis, "Mideast Oil Forever," in The Atlantic Monthly, pp. 57-74 (April 1996).

²⁸ Annual Energy Outlook, *supra*, 49.

²⁹ Id. 70,74.

Soon, these numbers will seem small. Even the conservative projections of DOE indicate that oil imports likely will climb at an average rate of 1.9 percent per year through 2015, with transportation accounting for a whopping 71 percent of the increase.³⁰ In ten years, the United States will import nearly 60 percent of our oil, doubling our trade deficit in oil to some \$100 billion per year.³¹

To make matters worse, the United States will not be alone in its clamor for petroleum. According to Joseph Romm and Charles Curtis, the authors of the Atlantic story, the world's population is expected to increase by 50 percent by 2020; much of the increase will occur in the developing world, which is undergoing an energy-intensive transformation to an urban and mechanized economy. Romm and Curtis report that, if the per capita energy consumption of China and India rises to that of South Korea, these two countries alone will require some 119 million barrels of oil -- double the world's entire current demand -- per day.³² And, lest we forget, the world does not have an unlimited supply. At least one observer predicts that, by 2020, domestic oil will be effectively depleted; world resources could run dry by 2040.³³

Increased demand for oil is expected to be supplied largely by the nations of the Persian Gulf region.³⁴ We already are importing more than twice as much oil from the Persian Gulf than we were at the time of the 1973 oil embargo.³⁵ This will continue to be a

³⁰ Id. 70-71, 74-75.

³¹ Romm and Curtis, supra, 60.

³² Id. 60. The authors acknowledge Fortune magazine as their original source.

³³ John Gever, et. al., Beyond Oil: The Threat to Food and Fuel in the Coming Decades (Niwott, CO: University Press of Colorado, 1991), 3rd Edition (p. xiv), cited in Getting There, supra.

³⁴ Romm and Curtis, supra, 60.

³⁵ Steve Nadis and James MacKenzie, Car Trouble (Boston: Beacon Press), 19 (1993).

necessity, because the rest of the world is drawing down its oil reserves at twice the rate at which the OPEC countries are drawing down theirs.³⁶ Despite recent increases in production by non-OPEC nations, the U.S. and our non-OPEC allies have enough reserves of our own to last only seventeen years under current projections.³⁷ DOE projects that OPEC's share of U.S. imports will climb to 57 percent, with the Persian Gulf share of all imports at 50 percent, by 2015.³⁸

This course portends serious economic and political risks. Japan-bashers may be surprised to learn that the leading cause of our nation's trade deficit is not consumer products but foreign oil: in 1990, imported oil accounted for 60 percent of our overall trade deficit, draining some \$60 billion each year from the American economy.³⁹ This may cost more than a million American jobs each year.⁴⁰ Moreover, the cumulative costs of oil price shocks and supply manipulation by the OPEC cartel from 1972 to 1991 have amounted to an almost unimaginable \$4 trillion.⁴¹ The consequences of a two-year supply reduction, comparable in size to past reductions, would be another half a trillion dollars lost to the U.S. economy, according to the Oak Ridge National Laboratory.⁴²

Money lost to the U.S. is ending up in Persian Gulf coffers. Atlantic authors Romm and Curtis report that, under present assumptions, the oil revenues of the Persian Gulf states will almost triple from \$90 to \$250 billion per year in 2010, constituting a \$1.5 trillion

³⁶ D.L. Greene, et al., The Outlook for U.S. Oil Dependence, Oak Ridge National Laboratory (ORNL-6873) 3 (1995).

³⁷ Romm and Curtis, supra, 60.

³⁸ Annual Energy Outlook, supra, 50.

³⁹ Nadis and MacKenzie, supra, 19-20.

⁴⁰ Biofuels America, Biofuels Fact Sheet (1995), cited in Getting There, supra, at 13.

⁴¹ Greene, et al., supra, 1.

⁴² Id. 5.

transfer in wealth to that "chronically unstable" region. The DOE officials note with concern that such resources could buy all sorts of weapons, influence, and mischief, especially given economic pressures in Russia to sell that country's advanced military hardware and expertise to the highest bidder.⁴³

B. No easy Refuge

We cannot blast and drill our way out of this problem. Although some have claimed, for example, that allowing oil exploration and production in the Arctic National Wildlife Refuge could enrich U.S. domestic oil supply and alleviate our dependence on foreign suppliers, the numbers do not support them. According to Romm and Curtis, DOE projects that within ten to fifteen years the United States will need to import a full thirty times as much oil as even robust estimates claim to be available from the Refuge.⁴⁴ The likely amount of recoverable oil from the Arctic site would, according to at least one report, extend America's oil supply by only 200 days.⁴⁵

There are many good reasons for staying out of the Refuge, of course, including the need to protect one of our continent's most precious and unspoiled environmental resources. Recent polling data indicate that a cross-section of the American public rejects opening the Arctic Refuge as an import-reducing strategy by a two-to-one margin. This sentiment is held by Republicans and Democrats, conservatives and liberals alike; it is held especially by self-identified "independent" voters, who oppose opening the Refuge by a 72-18 percent margin.⁴⁶

⁴³ Romm and Curtis, supra, 60.

⁴⁴ Id. 62.

⁴⁵ Northern Alaska Environmental Center Fact Sheet, "Facts About the Arctic National Wildlife Refuge" (August 1995), cited in Getting There, supra, at 13.

⁴⁶ America Speaks Out on Energy, survey results gathered by Research/ Strategy/ Management, Inc. for the Sustainable Energy Budget Coalition, at II-17 (January 1996).

The environmental devastation of Prince William Sound, as a result of the Exxon Valdez oil spill, speaks plainly of the risk of turning increasingly to environmentally sensitive locations to increase our oil supply. But the economic rationale is shrinking as well. In the 1950s, some fifty barrels of oil were discovered in the United States for every one barrel invested in exploration. Today, we discover only five barrels for every one invested. By 2005, the ratio is expected to balance out at one-to-one.⁴⁷

In any event, attempting to address oil dependence by increasing domestic supply would only exacerbate rather than solve the consumption-related problem of global warming. This issue is discussed immediately below.

C. Transportation and global warming

All observers acknowledge that charting the past and likely future courses of global climate change involves scientific uncertainties. Still, a variety of instrumental data, paleodata, simple and complex climate models, statistical models, and the like point to a common conclusion: there is a significant global warming trend, and the trend is man-made, largely from fossil fuel combustion. These are the findings of the Intergovernmental Panel on Climate Change (IPCC), an organization involving thousands of scientists from 120 nations that assesses the peer-reviewed scientific literature and advises the world's governments on climate change.⁴⁸

According to the IPCC, the mean surface air temperature of the earth has increased 0.3-0.6°C (0.5-1.1° Fahrenheit) since the late nineteenth century, and the twentieth century mean global temperature is at least as warm as any since the earliest times that scientists can

⁴⁷ Gever, supra, cited in Getting There, supra, at 13.

⁴⁸ IPCC, Summary for Policymakers of the Contribution of Working Group I to the IPCC Second Assessment Report (1995).

measure, about 1400 A.D. The most recent years of the last two decades have been among the warmest on record, despite the cooling effects of a major volcanic eruption at Mount Pinatubo in 1991. Global sea level has risen 10.25 cm. over the past 100 years, largely because of the rise in global mean temperature.⁴⁹

So far, the changes to our planet have been incremental. They are about to get a lot worse. In 1995, the IPCC reported on a range of projections it has developed to predict future climate trends. The entire range of likely scenarios projects average rates of warming probably greater than any seen in the last 10,000 years. The mid-range, "best estimate" forecast is for warming of an additional 2°C. (3.6° Fahrenheit) in the next century. The "best estimate" scenario also forecasts an additional sea level rise of about 50 cm. (20 inches) during the same time period.⁵⁰

Looking at a number of variables, the IPCC working group charged with modeling these forecasts has estimated a range of possible outcomes, involving continued warming from 1.0-3.5° C. (1.8-6.3° Fahrenheit) and continued sea level rise of 15-95 cm. (6-37 inches) by 2100. Under any of these scenarios, IPCC predicts a host of changes in the weather, including an increase in the number of extremely hot days and a decrease in the number of extremely cold days, a "more vigorous" hydrologic cycle, with more severe droughts and floods in some places and, in some models, an increase in precipitation intensity, with the possibility of more extreme rainfall events.⁵¹

⁴⁹ Id.

⁵⁰ Id.

⁵¹ Id. One can help sense the magnitude of a potential 3.5° C. warming by noting that the temperature rise that took the earth from the depths of the last ice age to present conditions was only 5° C. James J. MacKenzie, The Keys to the Car 12 (World Resources Institute, 1994).

The consequences of these changes may not be pretty. Health impacts, for example, are likely to include an increase in cardiorespiratory deaths and illnesses due to an increase in the frequency, intensity, and duration of heat waves, such as the one that killed more than 500 people in the American Midwest in the summer of 1995. The IPCC working group charged with evaluating the impacts and mitigation options associated with likely rates of warming also predicts an increase in the risk of vector-borne tropical diseases, including malaria, dengue, yellow fever, and viral encephalitis; the amount of the world's population at risk of exposure to malaria could increase from 45 percent to 60 percent in the next century as a result of global temperature rise.⁵²

Additional health risks would be presented by a rise in sea level and coastal water tables, which could cause contaminants from low-lying dump sites and septic systems to enter waterways and food chains.⁵³ Sea level rise could wreak havoc generally in coastal areas, with negative impacts on tourism, fresh water supplies, fisheries, and biodiversity; high tides will be higher and flooding and storm surges will cover more area.⁵⁴ A 50-cm. sea level rise, as predicted in IPCC's "best estimate," could damage or wipe out up to 43 percent of coastal wetlands in the United States.⁵⁵

The effects on the populations of island nations and other low-lying areas could be particularly severe. The IPCC estimates that a 50-cm. sea level rise would increase the total population at risk each year from flooding from 46 to 92 million people, even without accounting for expected increases in population. A worse-case scenario of a one-meter sea level rise would wipe out 17.5 percent of the land area of Bangladesh. Adverse impacts on

⁵² IPCC Working Group II, Second Assessment Report, Summary for Policymakers at SPM-10 (1995).

⁵³ U.S. Climate Action Network, Global Climate Change: U.S. Impacts and Solutions (1996).

⁵⁴ IPCC (Working Group II), supra, 6; U.S. Climate Action Network, supra.

⁵⁵ Id.

water supplies could be particularly threatening to a number of vulnerable countries (including Cambodia, Syria, Sudan, Egypt, and Iraq), in politically unstable regions, that are already highly dependent on water supplies originating outside their borders. This could create both international conflict and additional pressures for migration of populations.⁵⁶

Continued global warming also will bring substantial destruction to the earth's ecological equilibrium, perhaps for several centuries. A substantial fraction of the world's forested area could undergo major vegetation changes, with more frequent outbreaks of forest pests, diseases and fires. Desert conditions will become more extreme. And much of our existing mountain glacier mass could disappear, with significant downstream effects on river flows and water supplies, including water used for agriculture and hydroelectric generation.⁵⁷ Many animal species could be put at risk, especially polar bears, marine seals, great whales, seabirds and others that thrive in or migrate to cold climates.⁵⁸

The role of greenhouse gases in this bleak picture is now well-documented. Perhaps the most prevalent and damaging of mankind's contributions to global warming is excess carbon dioxide, which is emitted as an inevitable by-product of the combustion of fossil fuels. Atmospheric concentrations of carbon dioxide, which remains in the atmosphere for many decades to centuries, have grown 30 percent since pre-industrial times. The IPCC reports that, if carbon dioxide emission levels are maintained, concentrations will approach twice the preindustrial level by the end of the next century.⁵⁹

As an industrialized nation with an advanced economy, the United States emits a disproportionate share of the world's man-made carbon dioxide. And, among emission

⁵⁶ IPCC (Working Group II), supra, 4-9.

⁵⁷ Id.

⁵⁸ U.S. Climate Action Network, supra.

⁵⁹ IPCC (Working Group I), supra.

sources. transportation is a large contributor, accounting for some 446.8 million metric tons of carbon emissions each year; this constitutes 32 percent of all U.S. carbon emissions. DOE projects that total U.S. carbon emissions will grow at an average rate of 1.0 percent per year, with transportation sources growing at a faster rate of 1.2 percent per year.⁶⁰ For the reasons discussed above, DOE's projections may well understate transportation's contribution to the accumulation of greenhouse gases. In any event, DOE reports that carbon dioxide emissions today are growing faster than the assumptions underlying the President's Climate Change Action Plan, adopted after the 1992 Earth Summit in Rio de Janeiro.⁶¹

IPCC warns that policy intervention will be required to reduce the growth in greenhouse emissions from all sectors, including transportation. Even though there are scientific uncertainties in the forecasting, the panel warns that delay could only increase both the rate and magnitude of warming, leaving "a nation or the world poorly prepared to deal with adverse changes" and with an increased likelihood of "irreversible or very costly consequences."⁶²

D. The federal role and public expectations

American energy dependence and planetary health are issues of great national and international concern. They are matters of multilateral agreements and obligations among nations. The consequences of neglect could have serious implications for our country's foreign and defense policies as well as for the overall future of our society and others around the globe. These issues are the province of the federal government.

⁶⁰ Annual Energy Outlook, *supra*, 118, 119.

⁶¹ *Id.* 10.

⁶² IPCC (Working Group II), *supra*, 2, 11.

At the same time, it is clear that we need solutions at the local level, in order to permit ordinary Americans in ordinary communities to live and travel in more efficient ways, without compromises to our standard of living. The majority report from a Presidential advisory committee charged with reducing greenhouse gas emissions from motor vehicles put it this way:

At the present time, most Americans have no choice but to drive for most of their trips. Walking or bicycling is difficult because streets lack sidewalks or shopping; schools and libraries are accessible only by motor vehicle. Public transit is often not within reach, and when it is, it often is more expensive than driving and less frequent than one would need.

The goal should be a multifaceted approach that makes the choice not to drive easier to make, rather than an approach which seeks to prevent us from driving.⁶³

Many Americans would agree with this statement as a reasonable and prudent -- if not minimum -- response to our nation's serious energy, pollution and congestion problems. There is no question, however, that implementing it will require a range of decisions about the allocation of community resources under a variety of circumstances in different locations around the country. Local choices must be made.

The problem is that local communities and states cannot be expected to make decisions on their own to alleviate national or international problems that do not have

⁶³ Majority Report to the President by the Policy Dialogue Advisory Committee To Recommend Options for Reducing Greenhouse Gas Emissions From Personal Motor Vehicles 49 (1995). Although the Committee, which comprised representatives from a spectrum of government, business and citizen interests, failed to achieve consensus on fuel economy standards and gasoline taxes, there was general agreement among its members on most other issues.

immediate local consequences.⁶⁴ To assure that our national interests are attended, we need clear leadership and guidance at the federal level with direction, incentives, and funding programs that will link local decisions to collective national needs and strategies.

This is entirely consistent with public opinion, which exhibits a great deal of concern for energy efficiency and a great deal of support for federal programs to enhance it. In particular, a recent poll conducted by the Research/Strategy/Management (R/S/M) organization surveyed a randomly selected national sample of 1000 registered voters to determine attitudes toward sustainable energy issues and certain federal programs. Seventy-five percent of the respondents believe that the U.S. should reduce its dependence on foreign oil, and 71 percent view global warming as a "very" or "somewhat" serious threat.⁶⁵ These data are consistent with a 1993 poll showing that Americans overwhelmingly connect fossil fuel use with the greenhouse effect.⁶⁶

Although the R/S/M poll did not include specific questions to elicit views about ISTEA or Department of Transportation programs, it found high levels of support for federal activities on related subjects. In particular, it found near unanimous support for federally-

⁶⁴ While there is little direct local incentive, absent federal law, to address energy conservation needs, some efficiency-oriented surrogates do exist. They are not adequate, unfortunately, to assure conservation of transportation energy. Local jurisdictions have incentive to reduce traffic congestion, for example, but left entirely to their own devices might choose strategies that exacerbate fuel consumption. Similarly, strategies to reduce mobile sources of pollutants regulated under the Clean Air Act -- which are notoriously difficult to model -- do not always save gasoline and carbon dioxide emissions, which are not regulated under the Air Act. Nor does the Clean Air Act provide an efficiency incentive in regions that are in attainment with the Act's air quality standards.

⁶⁵ America Speaks Out, *supra*, I- 5-6.

⁶⁶ Sixty-four percent find the connection definitely or probably true, while only 24 percent find it definitely or probably not true. Twelve percent "don't know." Barbara C. Farhar, National Renewable Energy Laboratory, Trends and Patterns in Public Perceptions and Preferences on Energy and Environmental Policy (Presentation to a briefing hosted by the Environment and Energy Study Institute, March 22, 1996) (citing data from the National Opinion Research Center).

supported technologies to improve vehicle fuel efficiency (94 percent) and to develop renewable energy alternatives (90 percent). Energy efficiency and conservation programs and renewable energy programs ranked second and first, respectively, on a list of federal Energy Department research and development priorities, and a majority of respondents voicing an opinion also supported energy efficiency programs of the Environmental Protection Agency.⁶⁷

The opinions given in the R/S/M poll are especially noteworthy given that more respondents identified themselves with the Republican party (42 percent) than with Democrats (40 percent) and many more identified themselves as conservatives (61 percent) than liberals (26 percent). Despite their support for energy efficiency programs, a majority agreed that, in general, it is necessary to slow the growth of social programs to balance the federal budget in seven years. Fifty-nine percent said that they would be more likely to vote for a Congressional candidate who shares their energy priority.⁶⁸

Roper polls in the 1990s were consistent with, and add perspective to, the R/S/M survey. In particular, Roper found in 1990 that the public favors environmental protection over risking the environment to increase energy supply by a two to one margin. In 1994, only two months before the election of the 104th Congress, the organization found that nearly 50 percent of Americans think that environmental protection laws and regulations have not gone far enough, while only about 15 percent think they have gone too far.⁶⁹

Finally, these data are also consistent with recently reported Republican Party polls indicating strong support for our nation's environmental laws. There are encouraging reports that Congressional leadership, perhaps in response, may be increasingly prepared to

⁶⁷ America Speaks Out, *supra*, I- 3-5, II-17.

⁶⁸ *Id.*, I-2, II-4, 11. Research/Study/Management claims a margin of error for the survey of +/- 3.1 percentage points, at a significance level of .05 or a 95 percent level of confidence.

⁶⁹ Farhar, *supra*.

incorporate environmental protection into their federal agenda. House Speaker Newt Gingrich, for example, has voiced his support of federal environmental laws that are "committed to strong standards, but in a cooperative rather than confrontational basis." The Speaker has indicated support for an approach that is:

...based on valid science, incentives for compliance rather than punishment for noncompliance, rapid adoption of new technologies, and a search for innovative solutions from communities.⁷⁰

As discussed below, this is exactly what ISTEA does.

III. ISTEA: THE FRAMEWORK FOR LOCAL INNOVATION IN TRANSPORTATION EFFICIENCY

Congress recognized the importance of energy-efficient solutions when it wrote the "E" for "efficiency" into ISTEA. This was more than a symbolic gesture, as our nation's transportation law now contains a number of policy, planning, and program features that support conserving strategies. Local and state jurisdictions are now in the process of putting these strategies to work. Although ISTEA's nonregulatory features constitute only a component of an overall national energy strategy, not a panacea, it is critical that they be retained and strengthened in the statute's reauthorization.

⁷⁰ John H. Cushman, Jr., "Gingrich, Like the President, Calls for a 'New Environmentalism'," in The New York Times, April 25, 1996, A19.

A. ISTEA's emphasis on efficiency

The first sentence of the Intermodal Surface Transportation Efficiency Act (ISTEA) declares that it is the policy of the U.S. government to develop a transportation system to "move individuals and property in an energy efficient way." The law's declaration of policy is expanded in the nine subsections that follow, establishing the required characteristics of our country's transportation system. These provisions include three additional references to energy-related concerns:

- the components of the system must be "unified" and "interconnected" in order "to reduce energy consumption" and air pollution;
- significant improvements to the system must be made "to achieve national goals for improved...energy conservation," among others; and
- the system is to be operated and maintained "with insistent attention" to energy efficiency as well as to innovation, competition, productivity, growth, and accountability.⁷¹

The energy efficiency goals of ISTEA are fully compatible with those of a number of other federal laws, including the Energy Policy Act.⁷²

The statute gives expression to these objectives in a number of programmatic features. In general, ISTEA eschews substantive regulatory requirements in favor of procedural ones that assure the consideration of nationally important goals, along with appropriate funding mechanisms to enable regions and states to put efficiency strategies into effect.

⁷¹ 49 U.S.C. § 5501 (a) and (b) (1), (3), (6).

⁷² Energy Policy Act of 1992, 42 U.S.C. §§ 13201-13556 (Supp. V 1993).

The cornerstone of this approach is the planning process established by ISTEA for metropolitan areas and states, which reiterates that it is in the national interest to promote planning that will "minimize transportation-related fuel consumption."⁷³ The statute goes on to require metropolitan planning organizations (MPOs) to develop long-range transportation plans and near-term transportation improvement programs in accordance with a number of criteria, including consistency with applicable federal, state and local energy conservation programs and objectives and attention to "the overall social, economic, energy, and environmental effects" of transportation decisions.⁷⁴ These explicit energy criteria are supported by others among the so-called "fifteen factors" of MPO planning, including requirements to give priority to using existing transportation systems more efficiently, to consider the impacts of transportation planning on land use, to plan for the efficient movement of freight, and to consider methods to expand, enhance, and increase the use of transit services.⁷⁵ The requirements for statewide transportation planning, which takes precedence outside of metropolitan areas, generally duplicate the energy-efficiency factors specified for MPOs.⁷⁶

Two additional requirements are particularly important to planning for local and state transportation systems that conserve energy. First, ISTEA specifies that projects may be included in plans only if full funding can reasonably be anticipated for them; this encourages officials to strive for system efficiency by making the most of available budget resources.⁷⁷ Second, the Department of Transportation has clarified that, where the need for a "major

⁷³ 23 U.S.C. § 134 (a).

⁷⁴ Id. at § 134 (f) (2), (13).

⁷⁵ Id. at § 134 (f) (1), (4), (11), (14).

⁷⁶ See 23 U.S.C. § 135 (c).

⁷⁷ Id. at §§ 134 (h) (5) and 135 (f) (2).

metropolitan transportation investment" is identified, studies must be undertaken to evaluate the cost-effectiveness of alternative strategies in meeting local, state and national objectives.⁷⁸

Even the best plans, of course, are seldom self-executing. It is the federal funding mechanisms of ISTEA that complement the planning features and further enable and encourage regions and states to implement energy-saving transportation strategies.

Foremost among these are the law's flexible funding procedures, which allow transportation managers to utilize funds that under previous statutory schemes were available only for highway construction and maintenance and, pursuant to local discretion, apply them to energy-saving investments. ISTEA's innovative Surface Transportation Program (STP), in particular, may be used to fund not only highway projects but also transit capital assistance, carpooling initiatives, bicycle and pedestrian facilities, transportation control measures, and other projects.⁷⁹ The inherent flexibility of STP is enhanced by additional statutory authority allowing regional and state authorities to transfer funds not needed in other accounts to this program. Accounts that are eligible for transfer include those for the National Highway System, Interstate highway maintenance, and highway and bridge replacement and rehabilitation.⁸⁰

In addition, ISTEA helps assure that at least some investments are made consistent with energy and environmental objectives by setting aside modest portions of overall federal transportation assistance for these purposes. In particular, ten percent of a state's STP

⁷⁸ 23 C.F. R. § 450.318. While some have challenged DOT's authority under ISTEA to require major investment studies, they are in fact supported by the statutory efficiency goals and criteria discussed above. The concept also is referenced in the Federal Transit Act and in subsection (h)(4) of the MPO planning requirements, 23 U.S.C. § 134 (h)(4). See DOT, Statewide Planning; Metropolitan Planning, 58 Fed. Reg. 58040, at 58056 (October 28, 1993).

⁷⁹ 23 U.S.C. § 133.

⁸⁰ Id. at §§ 103, 104 (c), 119 (f), 144 (g).

apportionment must be available for so-called transportation "enhancement" activities such as pedestrian and bicycle facilities, scenic and historic conservation, and mitigation of water pollution due to highway runoff.⁸¹ And ISTEA's Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds transportation control measures and other projects necessary to help localities attain compliance with national air quality standards; such measures often help save energy as well as reduce pollution.⁸²

Although ISTEA is much more than an environmental or energy policy statute, these efficiency-promoting features are at its core.⁸³ They entered ISTEA with strong bipartisan support, and President George Bush signed the law without reservation on December 18, 1991. Shortly after the statute's enactment, the Bush administration's transportation leadership lauded its environmental features.⁸⁴

ISTEA's package of energy goals, safeguards and incentives hardly constitutes heavy-handed, command-and-control regulation. The law is, instead, a framework for partnership government, with standards, goals and procedures set at the federal level but choices about how to meet nationally important objectives made at the local and state levels.

⁸¹ Id. § 133.

⁸² Id. § 149.

⁸³ Many of the same provisions that encourage energy efficiency in transportation also work to support other goals, including economic efficiency and competitiveness, improved air quality, mobility for disadvantaged populations, provision of community services, congestion relief, and utilization of technology. See 49 U.S.C. § 5501 (b). It is precisely the diverse mix of community and national interests that ISTEA serves that has made the statute so popular with the public.

⁸⁴ See, e.g., Federal Highway Administration, Pub. No. FHWA-PD-92-012, Environmental Programs and Provisions (1992); U.S. DOT, Pub., No. FHWA-PL-92-008, ISTEA of 1991 (1992).

B. Strategies that work

The partnership is beginning to work. In the Albany, New York metropolitan region, for example, planners are in the midst of a comprehensive consensus-building process pursuant to ISTEA to choose a multi-modal transportation scheme for the region's future. The process is being assisted by a number of system performance indicators, including a measure of the gallons of fuel per day that are likely to be consumed in providing, maintaining and using various alternative visions for the region. The options being evaluated include highway expansion and light rail transit in the congested Northway corridor, strengthening regional capacity to provide stronger links between transportation and land use, and including pedestrian, bicycle and access improvements routinely when major reconstruction is undertaken on priority roads. Although the planning process is incomplete, there are signs that many of the energy-conserving strategies under consideration are supported by the public.⁸⁵

Conservation-oriented planning strategies have been identified also in metropolitan Chicago, where the Northeastern Illinois Planning Commission has measured the impacts of a range of demonstration projects for reducing automobile dependence and improving air quality. NIPC found, for example, that relocating a business in central Chicago and locating large, multifamily residential buildings convenient to transit and other facilities each saved hundreds of thousands of vehicle miles traveled per year. Substantial vehicle use savings were found also for other types of projects that are eligible for ISTEA assistance, including bicycle facilities, sidewalks and telecommuting. Although NIPC did not measure energy savings directly, it found significant reductions in hydrocarbon and nitrogen oxide emissions as a result of the savings in vehicle use.⁸⁶

⁸⁵ See Capital District Transportation Committee, New Visions for Capital District Transportation: Workbook (December 1995).

⁸⁶ Northeastern Illinois Planning Commission, Local Non-Auto Techniques to Promote Clean Air (June 1994).

ISTEA has done more than invigorate planning. The STP program, for example, is funding an access roadway that will enable more efficient intermodal freight transfers at the port of Seattle. The law's Enhancements program is helping Natchez, Mississippi establish an intermodal transportation center that will enable that town's many visitors to leave their cars behind and visit sites on trolleys or buses. And the CMAQ program has led to traffic signal improvements in Denver that have reduced travel times by 15 to 20 percent, saved nearly 1,800 gallons of fuel per day, and cut carbon monoxide pollutants by more than two tons per day. CMAQ funds are being used also to help establish passenger rail service on an existing freight line serving metropolitan Chicago and to build a new intermodal freight transfer facility in Auburn, Maine.⁸⁷

Collectively, strategies like these make a difference. The so-called "Car Talk" advisory committee on reducing greenhouse gas emissions determined that a combination of ISTEA-related transit, bicycle and pedestrian access policies could produce a savings of some 22 million metric tons (MMT) of greenhouse gas emissions per year by 2025. This calculation, which is based only on measures directed at influencing personal travel, does not reflect the substantial additional savings available from improved efficiency in the freight sector. Moreover, the addition of complementary strategies regarding road and parking pricing, according to the committee majority, would increase by 51 MMT per year the savings available from personal travel efficiency.⁸⁸

⁸⁷ Metropolitan Transportation Commission (Oakland, California), The Next ISTEA: Weaker or Stronger Brew? (February 1996).

⁸⁸ The "Car Talk" majority found that a combination of policies supporting vehicle fuel economy, use of alternative fuels, and reduced automobile dependence could save a total of some 387 MMT of greenhouse gases per year from personal travel by 2025. See Majority Report to the President, supra, at 14. Similarly, a consortium of public interest organizations found in 1991, prior to the passage of ISTEA, that a combination of vehicle technology improvement and vehicle use reduction strategies could reduce transportation energy use some 23-57%, depending on the policies employed. Alliance to Save Energy, American Council for an Energy-Efficient Economy, Natural Resources Defense Council and Union of Concerned Scientists, America's Energy Choices: Investing In a Strong Economy and a Clean Environment, 17 (1991). See also part IV of this paper.

C. Ringling endorsements

The principles underlying ISTEA's partnership framework have been strongly endorsed by the President's Council on Sustainable Development (PCSD), which brought together top executives from corporations and environmental groups along with government leaders in an intensive, three-year cooperative effort to chart solutions for the nation's environmental future. Citing ISTEA as a model approach to integrating economic, environmental and equity concerns, the PCSD straightforwardly urged that its basic principles be reaffirmed in the reauthorization. The Council also more generally endorsed approaches to other environmental problems with ISTEA-like applications that tie local discretion to accountability and performance and that are based on community-driven strategic planning and collaborative regional planning. The PCSD was co-chaired by David Buzzelli of The Dow Chemical Company and Jonathan Lash of the World Resources Institute; its members included an impressive array of business and organizational leaders, including executives from Ciba-Geigy, Georgia Pacific, Chevron, the AFL-CIO, General Motors, the Natural Resources Defense Council, and the Environmental Defense Fund, among others.⁸⁹

Similar conclusions were reached by the "Car Talk" committee. Car Talk, like the PCSD, included representatives from a broad range of interests, including the large U.S. automobile manufacturers, several large energy companies, and a number of additional government, business and environmental interests. Car Talk was generally less successful than the PCSD, in that it failed to reach consensus on certain key points, notably increased gasoline taxes and vehicle fuel economy standards. Nevertheless, the committee was strong in its endorsement of ISTEA's framework for efficiency:

⁸⁹ PCSD, Sustainable America: A New Consensus, Chapters 2 and 4 and pp. 54 and 97 (U.S. Government Printing Office, February 1996).

ISTEA's regional structure should be maintained and the Administration needs to support the flexibility, planning, public involvement and program emphases of ISTEA and extend them to other government programs.

The committee also endorsed "the development of a bicycle and pedestrian infrastructure in communities throughout America through continuation of ISTEA funding programs."⁹⁰

D. Strengthening the framework

ISTEA is working, as communities are beginning to use its features to support energy-saving transportation modes and strategies. Nonetheless, there is a great deal left to accomplish. Many available funds have been employed for energy-inefficient projects that were already in the pipeline before the new procedures and options of the 1991 statute took effect. Many communities and states are still building the on-the-ground political consensus necessary to implement new strategies. There are inconsistencies in the degree to which planning authorities have applied relevant criteria.

Although the law's efficiency features are still being implemented and have not yet realized their full potential, it is critical that they not be abandoned. Rather, the need is to achieve greater success through better monitoring, direction and incentives at the federal level, better implementation of ISTEA's features by MPOs and state governments, and better advocacy by citizens and environmental organizations to promote efficient planning and investment strategies.

As a first step, the ISTEA reauthorization should do its part by creating stronger incentives for efficiency strategies that work. In particular, Congress should seize the

⁹⁰ Majority Report to the President, supra, 54.

recommendation of the PCSD to use "verifiable and enforceable performance-based standards" to stimulate innovative regional and state efficiency strategies.⁹¹

The details can be worked out in the reauthorization process. One promising approach might be to reserve a small but significant amount of federal transportation funds as a bonus pool to be distributed periodically to reward those states and regions that demonstrate the most improvement in rates of motor vehicle fuel consumption per capita. Since data on gasoline and diesel fuel purchases and population are already available, tabulation could be relatively straightforward. Since bonuses would be awarded for improvement rather than absolute performance, all states and regions would have an opportunity and incentive to compete. Strategies for performance could vary according to normal regional and state decision-making processes: one region, for example, might emphasize technology-assisted van shuttles and carpooling; another might emphasize efficient land-use planning.

As an alternative or complement to a bonus pool, those jurisdictions showing the best performance in meeting national efficiency goals could be given additional flexibility in allocating federal funds.⁹² While the concepts need to be refined, the key would be to stress performance rather than process and to use incentives rather than only regulation to achieve

⁹¹ PCSD, *supra*, at 34.

⁹² While some incentives should be established to reward performance improvement -- so that jurisdictions in effect compete against their own records -- others should be reserved for absolute achievement. It makes particular sense for additional flexibility in spending federal funds to be reserved to these jurisdictions whose attainment of performance goals indicates reduced need for targeted funding to achieve efficiency. Conversely, jurisdictions whose performance is particularly deficient when measured against important conservation goals might be required to allocate additional portions of their federal funding to conservation strategies.

national efficiency needs. Such measures would build appropriately on the popular, partnership foundation charted by ISTEA's original framers in 1991.⁹³

The reauthorization also should consider additional aspects, beyond creating incentives for performance, to strengthen ISTEA's efficiency-enhancing features. A full discussion of such measures is beyond the scope of this paper, but several are worth brief mention. Amtrak projects, for example, should be made eligible to receive funding from the federal transportation trust funds. The list of CMAQ-eligible projects should be clarified explicitly to include purchases of energy-saving electric cars and other alternative-fueled vehicles that can reduce the fossil fuel intensity of public fleets. And, to assist communities interested in implementing growth management strategies, Congress should direct the Department of Transportation to study and report on those policies and land use design concepts that are most effective in promoting transportation efficiency.⁹⁴

IV. CONCLUSION: A COMPONENT, NOT A PANACEA

For all its virtues, ISTEA alone cannot solve the world's energy problems, even those attributable solely to U.S. transportation. The majority of the Car Talk committee, for

⁹³ DOT is already developing a set of measures for various aspects of transportation performance and efficiency, pursuant to its National Transportation System initiative. See DOT, National Transportation System Initiative: Refinements to the Development Process, 60 Fed. Reg. 31,180 (June 13, 1995). The importance of performance indicators to sound transportation management generally is discussed eloquently in Hank Dittmar, Surface Transportation Policy Project, Developing the National Transportation System: A Concept Paper (1994); see also F. Kaid Benfield, "Running on Empty: The Case for a Sustainable National Transportation System," 25 Environmental Law 651 (1995).

⁹⁴ Other improvements that should be considered to encourage energy-efficient transportation include requiring that bicycles and pedestrians be accommodated when roadways are constructed or re-engineered and requiring states and regions to adopt and improve upon the excellent model established by the Albany MPO and engage in performance-oriented planning.

example, identified a comprehensive package of policies that would return U.S. car and light truck greenhouse emissions to the 1990 level by 2005. . The list includes the following:

- raised vehicle fuel economy standards;
- feebate incentives for low rolling resistance tires;
- integrated, ISTEA-based, land use and transportation strategies;
- reform of workplace parking subsidies;
- shifting state and local road financing from tax-based subsidies to cost-of-driving fees;
- electric vehicle introduction;
- natural gas vehicle introduction; and
- biofuel and other low-carbon fuel introduction.⁹⁵

Some of these measures are controversial. But, as the list makes clear, meeting energy conservation goals in the U.S. transportation sector will require a multifaceted approach, with policies to promote significant improvements in vehicle technology as well as more efficient patterns of mobility.

We also will have to do more outside the transportation sector. For example, in 1991 a group of four energy and environmental organizations banded together to devise and promote comprehensive strategies necessary both to reduce energy consumption and maintain

⁹⁵ Majority Report to the President, supra, 14.

a strong economy. The resulting report, America's Energy Choices, stresses the need to deploy efficient technologies in residential and commercial building design and retrofit, as well as to reduce energy intensity and increase the use of renewable energy resources in industrial processes. It also recommends motor vehicle fuel economy improvements.⁹⁶

But ISTEA's partnership approach to federalism has a critical role in any sensible national energy strategy. The trends on vehicle use and transportation energy consumption speak too plainly of where we are headed if we do not maintain and build upon the current federal programs that enable and encourage regions and states to address these problems in their planning, investment and management strategies. America's Energy Choices, developed prior to the passage of ISTEA, put it this way:

A range of policies are needed to reduce the steady increase in vehicle miles traveled by providing a wider range of transportation choices, and encouraging the use of the most cost-effective combination of transportation modes for each application.⁹⁷

This is exactly what the statute is designed to do. Although there can be legitimate argument over whether ISTEA goes far enough, to roll back any of its efficiency-promoting features would be a disaster.

Instead, the reauthorization should maintain a strong federal leadership role in the transportation efficiency partnership. It should maintain and improve the federal efficiency goals for transportation. It should build upon the planning safeguards that place energy considerations at the heart of transportation planning and encourage realistic, thoroughly considered investment strategies. It should maintain and improve upon the programs that

⁹⁶ Alliance to Save Energy, et al., supra.

⁹⁷ Id. at 22.

dedicate at least some funding for efficiency strategies and allow local flexibility in meeting transportation needs. Let's keep the "E" in ISTEA.

ABOUT THE NATURAL RESOURCES DEFENSE COUNCIL

The Natural Resources Defense Council is a non-profit environmental membership organization with more than 250,000 members and contributors nationwide. Since 1970, NRDC's lawyers and scientists have been working to protect that world's natural resources and improve the quality of the human environment. NRDC has offices in New York City, Washington D.C., San Francisco, and Los Angeles.

NRDC's transportation project works to improve the energy consumption and pollution characteristics of vehicles and transportation patterns. Its work is made possible by generous support from The Energy Foundation, The Nathan Cummings Foundation, The Joyce Foundation and The Joyce Mertz-Gilmore Foundation.

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SURFACE TRANSPORTATION POLICY PROJECT PROGRESS

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From the Director's Chair:

Making America Walkable

by Hank Dittmar, Executive Director

At a recent hearing in the Senate's Environment and Public Works Committee, a senator asked me to justify the expenditure of ISTEA funds on projects to facilitate walking and bicycling at a time when traffic fatalities are on the rise. Somehow, the question implied, "wasn't it true that an auto trip somehow served the national interest more than a walk trip?"

In recent months, much of the Highway User's Alliance "highways only" campaign has centered around just this assertion—that walking and bicycling are somehow frivolous and that we should rededicate our federal program to the more serious activities of building and widening roads. After all, as the old saw goes, "isn't what's good for General Motors good for America?"

More and more, America is finding out that investing in walking and biking is good for America. In answering the senator's question, I focused on three main reasons to continue ISTEA's investment in

non-motorized transportation.

First, 8 percent of all trips made each day are walking trips, far more than the less than 2 percent of ISTEA funds devoted to walking and biking. At some point, every driver is also a pedestrian. If we are looking to invest in a transportation system, simple equity demands the expenditure of funding on non-motorized travel.

Second, the highway crowd's citation of the death toll on the nation's roads as a higher priority ignores the fact that 15 percent of all traffic fatalities year in and year out are pedestrians and bicyclists. As our new report *Mean Streets* demonstrates, less than 1 percent of ISTEA safety dollars are expended to improve safety for non-motorized transportation. Again, if safety is a compelling reason for national investment in transportation, simple equity demands that we devote more funds to providing for safer travel for walkers and bicyclists.

Third, the public clearly understands that investing in non-motorized transportation is

in the national interest. In a recent non-partisan national poll, two-thirds of Americans supported dedicating at least 1 percent of federal gas tax funds to walking and biking, and fully 70 percent agreed that another 1 percent should be devoted to the other enhancement activities, including historic preservation.

Grassroots campaigns across the country are rising up to make the country more walkable. People know that there is a national interest in promoting travel by foot and bicycle. Non-motorized trips don't pollute and don't contribute to sprawl. Accommodating bicyclists and pedestrians can reduce traffic fatalities and promote healthier and more vital communities.

ISTEA's reauthorization should continue to provide alternatives to the automobile, giving Americans the choice not to drive as well as continuing to recognize that most trips will continue to be made by car. In reauthorizing ISTEA, Congress should move forward, not backward. This issue of *Progress* focuses on moving forward on foot.

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JOBS, COMMUNITIES & THE ENVIRONMENT

AN AGENDA FOR ISTEA REAUTHORIZATION

ISTEA made the biggest change to federal transportation policy in a generation. In 1997, we need to both protect and build on ISTEA's reforms. The administration can play a big role in this process by adopting 3 simple but powerful themes for ISTEA II:

Transportation is about Jobs -- but not just jobs building roads. It's about jobs from a healthy economy, jobs from fixing crumbling roads, bridges and transit systems, and jobs from getting people off welfare and into work.

Transportation is about Communities -- it can make them better places to live and work, or it can hurt them. For too long we have focused on *projects* and ignored the needs of *communities*. By listening to people, we can spend our money in ways that make communities more livable and more prosperous.

Transportation is about the Environment -- inefficient transportation hurts the environment, whether through air pollution, wetlands loss or climate change. The environment is a matter of national concern, and the federal transportation program should include a major commitment to improving it.

First Things First: Protecting ISTEA

Flexibility. ISTEA allowed almost half of highway funds to be used for air quality, transit and other environmentally friendly alternatives.

Fair Decision Making. ISTEA gave authority to state and local officials, and set rules they must follow when spending flexible funds: new *planning requirements* that put attention on the energy, land use and other effects of transportation, a guarantee of *public involvement*, a requirement for *fiscally constrained planning*, and *Clean Air Act conformity*

New Funding Programs. ISTEA created 3 programs that are spurring creativity at the state and local level: the *Congestion Mitigation & Air Quality* program (CMAQ), the *Transportation Enhancements* program, and *targeted funds for metropolitan areas*.

Guaranteed Money for Maintenance. ISTEA's Bridge and Interstate Maintenance programs make sure some funds go to preserving the highway system.

Building on ISTEA

A New Emphasis on the Environment. Both as a matter of message and of substance, ISTEA II should deal with the environmental effects of transportation. New

funding should be made available to mitigate wetlands impacts, to make buying alternative fuel buses the same price as conventional ones, and to make more effort to provide alternatives to sprawl development.

Jobs, Welfare Reform and Transportation. Transportation should help get people from welfare to work, not be part of the problem. A new effort should be made to support job-link programs like those funded by HUD's "Bridges to Work" pilot program, and programs to promote transportation efficiency by bringing job growth to accessible locations that are often economically depressed.

Performance Incentives. Transportation spending needs to be guided more by real performance and less by red tape. We propose establishing three performance measures: one for the condition of the Interstate system, one for transportation safety, and one for environmental performance. States should be held accountable for their results, with the best performers being rewarded, and the worst being asked to do better.

Threats to ISTEA

Highways Only. The various highway lobby groups want to curtail flexibility, eliminate funding for transit, CMAQ and Enhancements, and force states to spend most federal money on highways.

Block Grants. Many state DOTs want federal money with no strings attached, even though ISTEA gave them unprecedented flexibility. The federal government has a responsibility to target some of its money to priority activities, assure fairness and keep local government as a funding partner.

Bad Budget Numbers. The Administration can be a powerful force for good in the coming debate, but a budget that causes huge accumulations in the Highway Trust Fund will prevent it from being a player. A huge build-up in the trust fund could lead to a partial repeal of gas taxes to bring revenue in line with spending. This happened to the Airport Trust Fund in 1995. The result would be the worst of all possible worlds -- an ISTEA reauthorization bill without an administration imprint, no help for the deficit, and less money to invest in jobs, communities and the environment

A NATIONAL INITIATIVE ON TRANSPORTATION AND THE ENVIRONMENT

ISTEA Reauthorization is an opportunity to make a new commitment to addressing the unintended consequences of transportation spending. In place of the old focus on building facilities, the federal role should shift toward addressing the impacts of transportation on society not captured by user charges. In addition to air pollution, wetlands loss, climate change and other environmental effects, these include dependence on fossil fuels, land use impacts, and undoing the damage to communities caused by past transportation investments. Just for air pollution, estimated costs for health care, lost productivity and other effects range from \$30 billion to over \$200 billion per year, almost none of which is paid by transportation users.

These problems should be the focus of a new, comprehensive federal approach to understanding and lessening the impacts of transportation on the environment. Such a program could include several basic elements:

1. Assuring reauthorization of those parts of ISTEA with environmentally beneficial effects: the CMAQ and transportation enhancements programs, funding for transit and rail, and its planning and transportation conformity provisions.
2. A federal commitment to having every new transit bus purchased in the U.S. in the next five years powered by clean fuels. This could be done by providing the funding necessary to cover the incremental costs of alternative fuel vehicles over conventional ones.
3. A new effort to protect wetlands from the impacts of development driven by transportation facilities, and, if the science proves valid, funding for restoration of deteriorated wetlands to partially compensate for ongoing losses.
4. Establishment of performance measures for energy efficiency in transportation that can be used to track the performance of states and metropolitan areas over time and reward states and metropolitan areas that are doing well.
5. An expansion of the Congestion Pricing Pilot Program created by ISTEA to promote full-cost pricing of transportation facilities.

These activities fall along a broad range but share a common theme. All are meant to promote a value we claim to hold dear -- protecting the environment -- which will not be properly addressed in a system that continues to focus building facilities rather than providing efficient transportation without undue external effects.