

e

ENVIRONMENTAL DEFENSE

finding the ways that work

**Financing Transportation:
Wise Stewardship Demands a Level Playing
Field**

Testimony of Michael A. Replogle
Transportation Director, Environmental Defense
1875 Connecticut Ave NW, Washington, DC 20009
telephone: 202-387-3500; mreplogle@environmentaldefense.org

before the Congressional Joint Economic Committee
May 6, 2003

Good morning Mr. Chairman and members of the committee. I am speaking on behalf of Environmental Defense, an organization with 300,000 members that seeks to integrate law, science, and economics to find practical solutions to environmental problems.

Wise stewardship of our transportation system, economy, environment, and communities demands a level playing field between highways and other transportation choices. When financing, taxation, and pricing systems favor driving and roads over transit, walking, biking, and other choices, it skews consumer and agency investment and consumption decisions, harming efficiency and public welfare. We urge your action in the reauthorization of America's key federal transportation law, TEA-21, to make the playing field more, not less level, so Americans can be wise stewards of transportation.

How we finance our nation's transportation has a powerful influence on our travel choices, communities, public health, equity of access to opportunities, transportation system performance, and quality of life. For much of the last century, government funding for transportation, tax policy, and transportation pricing policies have strongly favored private motor vehicle use. While spurring unprecedented mobility, this also led to sprawl, induced traffic, degraded air and water quality, reduced access to opportunities for the millions of Americans who don't drive. It diminished transportation choices and made it harder to walk safely where we live and work, diminishing routine physical activity. Scientists now link our dependence on cars with asthma and other respiratory diseases, cancer, obesity, and impaired mental health.

The great progress we've made in producing cleaner cars has been significantly offset by growth in driving. The growing supply of "free" roads and highways, especially high-speed

motorways with little local access function, supported by deep subsidies to motorists from general revenues, is a key factor in rising traffic and congestion. From 1970 to 1998, vehicle miles traveled (VMT) increased by 136 percent, or more than three times the rate of population growth. Other indicators of driving activity - vehicle trips per person, average vehicle trip length, and number of motor vehicles per person - have also risen sharply, in no small part due to the major expansion of highways in the past half century.

Over 160 million Americans still live in areas with poor air quality. Fourteen million with asthma gasp for air when ozone levels rise. Those living near high volume roads face cancer risks of 1 in 500 from air toxics. Emissions from cars and trucks are increasingly linked to cancer, childhood asthma and other respiratory illnesses. And transportation greenhouse gas emissions - up 9 percent since 1990 - bring new threats to our health and environment. Indeed, U.S. DOT estimates the health effects of air pollution from motor vehicles costs us \$40 to \$65 billion annually, dwarfing the \$27 billion in federal transportation spending, and this doesn't consider the effects of air toxics.¹ This is a hidden tax of over \$600 a year on each U.S. household, and is disproportionately borne by our children, elders, and the infirm. TEA-21 reauthorization represents an opportunity to improve our accounting for these hidden costs and to align the strategies we use to finance transportation with the goals of minimizing these burdens while maximizing the efficiency of our mobility system.

A Level Playing Field Between Roads and Other Travel Choices?

The 1991 ISTEA reforms - reaffirmed and extended in the 1998 TEA-21 law - began to level the playing field between highways and other means of transportation after more than a half century of overwhelmingly pro-highway policies. Uneven local match requirements to get federal transportation funding, which once favored Interstate highway construction over transit and local street improvements, were leveled at an 80:20 federal - local match. The door opened for state and local governments to begin exploring new transportation financing and management strategies, such as High Occupancy Toll (HOT) lanes and electronic time-of-day road pricing. Federal transportation funds were made more flexible to support transit, pedestrian safety, and market incentive programs, such as promoting employer-paid transit benefits. Accountability was expanded for states and regions to consider the short and long term effects of transportation decisions on air quality and transportation system performance.

¹ U.S. Department of Transportation, Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, May 2000, Washington, DC. Page 11. Available at: www.fhwa.dot.gov/policy/hcas/addendum.html.

Thanks in no small part to these reforms, the long rapid rise of vehicle miles of travel began to slow and more Americans began choosing alternatives to driving. From 1996-2002, transit ridership grew 19 percent, compared to an 11 percent increase in vehicle miles of travel. Yet transportation finance problems now dampen this recent positive trend. Disastrous local and state finances caused by the recession and rising homeland security costs have prompted transit agencies to cutback service, increase fares, or both to compensate for funding shortfalls. Nine in ten large transit agencies have implemented or are planning to implement fare increases and one-third of all agencies are providing less frequent service.² Rising unemployment - now at more than 8.4 million Americans - combined with these transit fare increases and service cutbacks caused transit ridership to fall slightly last year, while vehicle miles driven rose 1.7 percent over 2001 levels as more Americans drove to avoid air travel for many intercity trips.

A shortage of funding in the federal Transit New Starts program - a primary source of financing for new rail transit - has led to sharp reductions in the federal match provided for transit expansions sought by dozens of cities across America. Now there are proposals to write into law a requirement for local sponsors of new transit projects to come up with \$5 for every \$5 US DOT provides (a 50:50 match), while highway project sponsors still only need to come up with \$1 for each \$5 from the US DOT for new roads (an 80:20 match). Such an unlevel playing field is a recipe for unwise investment choices. The Progressive Policy Institute proposes a 70:30 match for both highways and transit, a fair and sensible suggestion, given that all transportation dollars are scarce. But new proposals for road toll financing threaten to restrict billions of additional dollars for building new roads, cutting out transit, which may be thus cast into another spiral of decline.

A transit proposal floated by Senators Grassley and Baucus would reallocate federal gas tax funding, which now is divided so 15.44 cents goes to the "highway" account and 2.86 cents goes to the "mass transit" account. Under the Grassley-Baucus proposal, the mass transit account revenue would be reduced to 0.50 cents, thereby raising the highway share to 17.9 cents. This would leave the transit program short by nearly \$4 billion a year, to be made up by some sort of borrowing, modeled on the AASHTO proposed Transportation Financing Corporation. Large scale borrowing through a new class of federally sponsored debt would substitute expensive tax credits for direct appropriations and leave transit funding in a highly precarious indebted position entering the next funding authorization cycle. As a means around the budget caps, it falls short of the AASHTO proposal, which relied on a tax increase through indexing to

² See: <http://www.apta.com/research/info/online/econimpactsurvey.cfm>

generate revenues to offset the tax credit revenue losses. With no revenues, the transit program could not generate these offsets. In short, this proposal would destroy TEA-21's guaranteed and firewalled transit funding support, putting roads first at the expense of travel choices and wise system stewardship.

Americans want more, not less transit service and travel choices. According to a recent poll conducted for the American Public Transit Association, 81 percent of Americans agree that increased public investment in public transportation would strengthen the economy, create jobs, reduce traffic congestion and air pollution, and save energy. Nearly three-quarters of Americans support the use of public funds for the expansion and improvement of public transportation.³ Unfortunately, according to the 1995 Nationwide Person Transportation Survey, only 49 percent of all Americans have easy access to public transportation, living within one-quarter mile of a transit stop. If we are to avoid repeating the mistakes of the past, highway financing innovations need to recognize these broader public demands for transportation choices and ensure that increases in transportation funding benefit all travelers and transportation stakeholders, rather than reinforcing our already overwhelming dependence on driving.

³ See: http://www.apta.com/media/releases/wirthlin_news.cfm

States Transportation Financing: A Very Unlevel Playing Field

While the federal government has invested more in transportation since 1991 under ISTEA and TEA-21, states have lagged behind, both in the amount of financing they have provided and in the flexibility of the funds made available to meet diverse transportation needs. Since 1991, only six states increased their gasoline taxes faster than the rate of inflation - most didn't increase gas taxes and five states actually decreased them. At the same time, the growth in non-user fee revenues outpaced even the growth in state motor fuel tax revenues.

Contrary to popular impression, America's roads and highways are only partially funded by "user fees" - taxes on fuels, tires, vehicle sales, registrations, and the like. Sales taxes, property taxes, and general revenues provide a major share of the funding to build and operate highways and roads - as much as 4 out of 10 dollars of the costs, according to some studies.⁴ And of the 41 transportation funding measures on the ballot in 2002, only four attempted to increase state gasoline taxes on users, with all of the other measures proposing to increase general taxes directly or indirectly in support of future transportation improvements.⁵

Since state governments have been reluctant to pursue increases in traditional transportation user fees, local governments have been forced to turn to the general taxpayer - and often the voter - to support transportation infrastructure. Historically, most local governments and transit agencies have not been given access by their states or road tolling agencies to user fees, such as motor fuel taxes, to finance transportation improvements. In addition to the difficulty local areas confront in gaining access to user fees, in more than 30 states constitutions or statutes limit the expenditure of transportation user fees for anything other than highway improvements (see Table 1).

This skews transportation decisions in favor of road construction, rather than balanced transportation investments and pursuit of strategies that lead to more efficient system management and expanded travel choices. It particularly hurts transit agencies because they thus often end up relying on appropriations from the state's shrinking general fund.

In light of this development many local officials, transit agencies, environmental and labor groups are asking state

⁴ U.S. Office of Technology Assessment, *Saving Energy In Transportation*, 1995, Washington, DC.

⁵ Surface Transportation Policy Project, *Measuring Up: The Trend Toward Voter Approved Transportation Funding*, 2002, Washington, DC.
<http://www.transact.org/report.asp?id=201>

Table 1	
States with Constitutional Provisions Restricting Expenditure of Gasoline Tax Revenues to Highways	States with Statutory Provisions Restricting Expenditure of Gasoline Tax Revenues to Highways
Alabama	Alaska
Arizona	Arkansas
Colorado	Florida
Georgia	Hawaii
Idaho	Indiana
Iowa	Mississippi
Kansas	Montana
Kentucky	Nebraska
Maine	New Mexico
Minnesota	South Carolina
Missouri	Tennessee
Nevada	
New Hampshire	
North Dakota	
Ohio	
Oklahoma	
Oregon	
Pennsylvania	
South Dakota	
Utah	
Washington	
West Virginia	
Wyoming	

governments to open up state gasoline tax revenues, transportation trust funds, and toll revenue streams for public transit and other local transportation. There is an increasing belief that states and road toll agencies should not continue to sequester state transportation trust funds or toll revenues for their own uses, excluding the legitimate transportation needs of local governments and transit users, while asking local governments and transit users for additional project funding and general tax revenues for to support the state highway system.⁶

Towards this end, Congress should support the creation of a new Flexibility Incentive Grant Program that would allocate flexible federal transportation funds to those states that amend their state constitutions or statutes to (1) create a transportation trust fund that distributes transportation dollars for both highways and transit; or (2) unlock their existing highway trust fund by distribution transportation dollars for both highways and transit; or (3) increase the percentage or level of spending dedicated towards alternative transportation such as the dedication of new state gas tax revenues, interest on existing highway funds, motor vehicle excise taxes, tolls, loans to be made out of highway funds, or other resources, for transit use - to encourage states to unlock their own

⁶ STPP, 2002, op.cit.

transportation resources for transit use and efficient total transportation system management.⁷

Fostering Efficient Transportation and Financing with New Pricing Strategies

Some automobile manufacturers are beginning to offer more fuel efficient vehicle options for motorists, including new higher efficiency hybrid gasoline-electric vehicles like the Honda Impact, Toyota Prius, Honda Civic, and Ford RAV-4. Efforts to develop natural gas, electric, and fuel cell vehicles offer some promise for a reduction in petroleum dependence before the end of the 20-year transportation plans adopted by regions under TEA-21. While these will not immediately impact federal and state revenues from gasoline taxes, which comprise the major source of transportation funding, it would be prudent for Congress to support efforts by states and regions to develop transportation user fees other than the gas tax to assure stable future financing of transportation systems.

An array of pricing innovations could play a valuable role in helping America meet financing, system management, and environmental goals, but most face regulatory or market entry barriers. ISTEA and TEA-21 both provided support for the Federal Highway Administration to support pilot projects and research in pricing innovations through what has most recently been known as the Value Pricing Program. This program merits reauthorization at a level of at least \$25 million a year.

Benefits of Alternative Pricing Strategies. Congestion pricing and road tolls, mileage or emission based registration fees, VMT fees, Pay-As-You-Drive (PAYD) auto insurance or other use-based auto insurance, and gasoline tax increases could all produce significant revenues as well as traffic and pollution reduction. Expert analysis of likely impacts of such strategies in many other metropolitan areas have found substantial traffic and corresponding emission reductions possible as a result of any one of these strategies.

For example, a study by the California Air Resources Board found that congestion pricing fees of \$0.10 a mile would yield a NOx reduction of 2.5% in the South Coast region of California under 1991 conditions, increasing to 3.6% with a \$0.19 per mile fee under 2010 conditions. They found that a \$0.50/gallon fuel increase would yield NOx reductions of 3.3-3.8% in various California metro areas under 1991 or 2010 conditions. They found a \$.02/mile VMT fee would reduce NOx emissions by 3.6-4.3% in various California metro areas under 1991 or 2010 conditions. They found emission fees reducing NOx emissions by 4.2-17.3% depending on assumptions

⁷ Amalgamated Transit Union, *TEA-21 Reauthorization Proposal: Next Stop: Real Choices*, May 2002, Washington, DC.

in various California metro areas. Combining congestion pricing of \$0.09/mile in peak, a \$1 a day employee parking charge, a \$0.50/gallon fuel tax increase paid at the pump, and a mileage and emissions based fee of \$40-400/year, with current transit service, they found NOx emissions reduced by 9.9-12.1% in San Francisco, Sacramento, San Diego, and Los Angeles under 1991 or 2010 conditions.⁸

Combining the same congestion pricing with a \$3/day employee parking charge, a \$2/gallon gas increase paid at the pump, and mileage and emission fees of \$10-1000/year, with extensive transit investment would cut NOx emissions in these same cities by 32.0-34.9% under 1991 or 2010 conditions. The EPA states that "VMT fees of \$0.01 to \$0.05 a mile alone would reduce gaseous emissions and VMT by about 4 to 11 percent, while a VMT fee weighted for emissions was estimated to have a significantly greater impact on emissions, particularly for VOC and NOx."⁹ EPA summarizes various studies to conclude that added fuel taxes of \$0.40 to \$2 a gallon usually reduce NOx emissions 1.2-6.9%. At the pump VMT fees of \$0.01 to \$0.05 per mile usually reduce emissions 5-8.6%. Traffic reductions correspond closely to these reported NOx reductions, and generate proportionally greater congestion reduction benefits.

PAYD Insurance. A recent study by the Federal Highway Administration showed that by converting fixed motorist costs of car insurance, taxes, and fees to variable costs that allow motorists to save money if they drive less, consumers would save billions of dollars a year and experience substantially less traffic delay. A element in this, Pay-As-You-Drive (PAYD) car insurance, could cut air pollution and traffic congestion by 10 percent to 12 percent or more.¹⁰ Under current term-based insurance pricing, motorists who drive less than the average pay much higher costs per mile for car insurance than those who drive more than average, which encourages more driving and pollution. For example, for an intermediate size car, insurance premiums typically represent a cost even greater than fuel and oil costs, about one-fifth of the typical total financial costs of owning a car. When insurance premiums are converted to distance-based charges, motorists can save money by driving less and combining trips.

Newly available data indicate that distance-based insurance pricing is more actuarially accurate, and therefore more equitable and economically efficient than current pricing. Distance-based insurance provides specific benefits

⁸ California Air Resources Board, *Transportation Pricing Strategies for California: An Assessment of Congestion, Emissions, Energy, and Equity Impacts*, November 1996, Sacramento, CA.

⁹ EPA Pricing Guidance document, *Opportunities to Improve Air Quality through Transportation Pricing Programs*, September 1997,

¹⁰ Todd Litman, *Distance-Based Vehicle Insurance: A Practical Strategy for More Optimal Pricing*, Victoria Transport Policy Institute, August 2001

including reduced accidents, traffic congestion, and pollution, facility cost savings, insurance affordability, and increased consumer welfare. Vehicle travel foregone consists of low-value trips that consumers willingly give up in exchange for financial savings. Distance-based premiums would use "odometer audits" to provide accurate mileage data, which is estimated to have incremental costs averaging \$7.50 per vehicle year. Research suggests total benefits of distance-based insurance to be many times greater than costs, with a benefit:cost ratio of 50:1 estimated for the case of British Columbia. Motorists are expected to reduce their average mileage by about 10% under distance-based pricing, providing net savings to the vast majority of consumers. Even high mileage drivers experience virtually no increase in total vehicle costs if they reduce their mileage as predicted. Higher-mileage drivers would also benefit most from reduced traffic congestion, accident risk, and pollution.

The state of Texas enacted in May 2000 HB 45, which authorizes insurance companies to offer distance-based motor vehicle insurance policies. The Oregon House has passed a bill to offer a \$100 state tax credit for insurance companies writing distance-based motorist policies. US EPA and the Federal Highway Administration have in recent years cooperated in promoting use-based car insurance strategies, including PAYD insurance. FHWA's Value Pricing program supported important research and pilot projects for use-based insurance in Georgia and Massachusetts, but unfortunately cut off funding for these in 2002.

Market incentives like PAYD insurance face significant state and local regulatory and institutional costs and barriers. Insurers express a strong desire for additional actuarial data to support PAYD policies. Government support is needed to foster public-private partnerships, share risks, collect and evaluate data, educate and inform consumers and service providers, and incubate and demonstrate alternative marketing, pricing, and business models.

Congress should also provide \$15 million a year for a PAYDAYS (Pay-As-You-Drive-And-You-Save) Grant Program to support expanded research and pilot testing of this market based strategy, including risk sharing with insurance companies pilot testing this approach to policy pricing, paying for expanded actuarial research, marketing, partnership development, evaluation, and promotion. This would allow a designated university or non-profit entity to act as a research clearinghouse, capacity-building center, and catalyst for public-private partnerships, supporting efforts by governments, non-profit entities, and companies to design, test, and evaluate innovative mileage and parking pricing strategies. The potential payoff - a reduction of 10 percent in traffic while saving consumers money and reducing accidents and casualty losses to insurers - is well

worth such up front investment to help jump start this market innovation.

Another important potential source of funding for developing, evaluating, and mainstreaming these activities is the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. This program should be reauthorized at twice its current funding level to account for anticipated growth in air quality non-attainment areas and for an expanded program targeted to deal with air toxics problems. Sub-allocating CMAQ funds to local areas and assuring air agencies a greater role in project selection will foster fuller and more effective use of these funds. Congress should explicitly authorize use of CMAQ funds for promotion and demonstration of PAYD insurance, permitting use of funds for pilot-project start-up, marketing, risk-sharing, mileage-based rebates, other related incentives, and evaluation activities serving both attainment and non-attainment area motorists, provided that pilot projects focus on producing substantial emissions reduction benefits in air quality non-attainment or maintenance areas. Congress should encourage of the use of CMAQ funds for 'parking cash-out' pilot programs as well, including start-up program incentive payments to commuters and risk guarantees for developers who reduce parking and instead establish dedicated transportation incentive programs for site access.

Congress should support initiatives to expand the use of automated time-of-day road pricing on existing tolled facilities and when such systems are managed to reduce the need for added roads and direct new revenues substantially to support expanded means of access to jobs and public facilities for people without cars. Accountability for environmental, community, and equity impacts must not be weakened through increased reliance on bond and private road financing.

Managed Toll Lanes: A Road To Greater System Efficiency and Expanded Choices

A promising option for unclogging roads, especially in more congested metropolitan areas, is automated time-of-day tolls and High Occupancy Toll (HOT) lanes, which allow solo drivers to pay to use High Occupancy Vehicle (HOV) lanes, while giving a free ride to buses, vans, and sometimes carpools. These can put to work unused capacity in HOV lanes and low efficiency general purpose lanes, helping to pay for expanded transportation choices. A network of HOT lanes on existing highways is likely to provide more effective congestion relief than building new roads, especially if revenues are used to expand travel choices for all. But new outer beltway roads - even if built as toll roads - are likely to exacerbate sprawl and put more jobs out of reach for those without cars, hurting the poor and the environment. Wise policy will avoid the latter, instead giving time-stressed travelers a way to buy relief from

growing congestion delays in existing freeway and travel corridors.

New non-stop electronic toll technology means motorists don't need to slow down to pay tolls. And HOT lane fees -- higher in rush hour and discounted at other times - can keep traffic flowing without wasting scarce road capacity like some HOV lanes do. This makes it possible to contemplate future conversion of some existing general-purpose lanes to HOT lanes, particularly where new capacity is being added to existing roads. But HOT lanes should not be created at the expense of effective HOV or bus lanes, where these provide efficient services, as in the Shirley Highway Corridor of Washington, DC, or the approaches to the Lincoln and Holland Tunnels connecting New York and New Jersey, or some Seattle HOV lanes.

HOT lane experience indicates this strategy can garner popular support. In the most recent survey of the I-15 Express Lane corridor in San Diego, 91% of I-15 commuters agreed with the statement, "it's a good idea to have a time saving option on the I-15 always available."

On California's Route 91, diversion of traffic onto HOT lanes has reduced congestion on the entire road and increased the number of passengers per car to 1.6, compared to the average of 1.2. Similar road toll related incentives have been implemented or are being considered in Texas, Florida, Colorado, Georgia, New Jersey, New York, and other states.

The Port Authority of NY-NJ in March 2001 introduced time-of-day tolls on Hudson River bridges and tunnels and Staten Island bridges, giving discounts for electronic toll payers who avoid rush hours and charging a premium in the time of most concentrated demand, just like movie theaters and many other services. This helps reduce congestion by shifting the time of day of traffic. Regional agency officials have estimated the Port Authority's modest time-of-day toll system has cut traffic in the peak hours by 7 percent, saving tens of thousands of hours of travel delay. Toll revenues support better PATH rail transit and regional transportation infrastructure and services. The NJ Turnpike, NY Thruway Authority, and other tolling agencies have implemented time-of-day tolls to manage traffic.

HOT lanes in existing road corridors - if developed appropriately - can expand both travel choices and equity, but if revenues are dedicated solely to road construction, these benefits can disappear. HOT lane critics often unfairly bash them as "Lexus Lanes," serving only the rich. Several real-world HOT lanes look more like "Lumina Lanes," used by people of widely varying incomes who occasionally need to bypass traffic delays that disrupt their social, family, or work life. A working class mom who is facing a \$1 a minute penalty for picking her kids up late at day care is

happy to pay \$4 to save 20 minutes by using the HOT lane on those several days a month when she needs it. The typical users of California HOT lanes spend less than \$20 a month on HOT tolls, using them on days they are in a real rush.

The real issue is *what happens to the toll revenue?* If HOT lane revenues fund new transit, as on San Diego's I-15 HOT lane, everyone wins. Lower income transit users and carpoolers can get access to otherwise inaccessible suburban jobs. Drivers benefit from reduced road congestion and better services and choices. If a portion of HOT lane revenues help pay for the road, then those who drive most are paying more of their fair share, helping all taxpayers win, since road user fees don't cover the cost of building and operating America's roads. And with new accounting rules forcing fuller disclosure of deferred maintenance, transportation providers need new sources of revenue to maintain systems, expand choices, and cope with growing travel demand.

But if HOT lane revenues, or other road tolls and motorist user fees are dedicated solely to building more highways, or if the tolls are dismantled once the bonds used to pay for the road capacity have been retired, then the net impact of this financing system is likely to be increased traffic, pollution, sprawl, and unequal access to opportunities and public facilities that hurt those without cars, especially people of low incomes, minorities, the disabled, the very young, and the very old. If HOT lanes and toll-supported road privatization and bond financing schemes are used to evade environmental and public accountability laws, these impacts are not likely to even be recognized until it is too late to do anything about it. The externality costs of imprudent investment choices will accrue to those least able to afford it, while the profits from road construction, sprawl development, and subsidized motor vehicle use accrue to a narrower set of private interests. The result would be an unlevel playing field for roads vs. transit, fostering imprudent stewardship of transportation resources, the environment, and communities.

Reauthorization of TEA-21 offers new opportunities to remove barriers and provide new support for more widespread development of equitable value pricing strategies and market incentives. Clearly, Congress should support proposals to eliminate restrictions that have limited the ability of agencies to impose tolls on federal-aid Interstate highways but it should look closely at what restrictions and performance measures are placed on the system and how toll revenues may be used.

H.R. 1767. Rep. Mark Kennedy recently introduced a FAST Lane bill (H.R. 1767) which would allow the use of tolls on the Interstate System to finance the construction and subsequent improvement of designated FAST (Freeing Alternatives for Speedy Transportation) lanes. Many

environmentalists would support this bill if it is changed to:

- drop the provision that lane fees expire when costs have been recouped;
- provide for the authorization of such fees to be collected on existing as well as new lanes, at local option, if this provides for improved traffic flow or maintenance of capacity in the corridor;
- permit the use of revenues not just for new lane construction, but also to support transit, vanpool, walk and bike transit access, and other transportation capital and transportation operating expenses in the affected travel corridor; and
- require establishment of local performance goals for maintenance of capacity, efficient traffic flow, and fair access to jobs and public facilities for low income and minority residents in the travel corridor, with periodic evaluation and consideration of adjustments to toll levels and apportionments of net toll revenues to meet these performance goals.

Without these changes, H.R.1767 would facilitate rapid expansion of sprawl, traffic, and pollution-increasing highways, exacerbating inequity of access to jobs and public facilities for people without cars and benefiting higher income travelers while discriminating against low-income people. With the changes above, however, it could result in improved equity of access and net environmental benefits.

Reason Foundation HOT Networks Proposal. The Reason Foundation's recent report, *HOT Networks: A New Plan for Congestion Relief and Better Transit*, offers a somewhat broader vision than H.R. 1767 as it links HOT lane development to substantial expansion of Bus Rapid Transit (BRT). While this report has been valuable in spurring discussion of the concepts it advocates, it falls short of presenting a balanced proposal. It would create new sprawl and traffic inducing outer beltways, such as the Inter-County Connector around Washington, DC, using a combination of HOT revenues and Highway Trust Fund resources. It would dedicate HOT lane revenues to paying off bonds for the new road capacity and rely on the severely oversubscribed and under-funded Federal Transit Administration New Starts Program to finance purchase of transit vehicles to operate on the HOT/BRT lanes, diminishing federal support for locally-supported new rail transit investments across America. It does not include the costs of BRT stations, access, or maintenance facilities in the cost estimation for the HOT/BRT system. And nowhere does the report address the critical limitation on BRT and transit systems across America today -- a steady funding source for operating assistance. With this set of ingredients, the Reason

Foundation's proposal would, if adopted wholesale, contribute to significant sprawl and traffic growth, while failing to address the transit funding crisis that is causing transit service cut backs and fare increases across America.

If these shortcomings were addressed, however, the proposal could garner support from many in the environmental community. BRT does constitute a more viable and cost-effective strategy than rail for many communities where transit services are now severely limited, but to be effective, it must be adequately financed and supported with land use plans for transit-oriented development, improvements to pedestrian and bicycle access, and a dedicated source of operating assistance. But BRT should not be regarded as a simple add-on to a HOT network.

To be effective, as in the outstanding example provided by Bogota's TransMileneo system, BRT needs to encompass reforms in transit fare collection systems, transit route structures, and transit access systems, with well designed stations, high-level boarding, separation of fare collection from boarding, and a high level of priority in traffic. BRT is probably best operated in the environments created by high level urban arterial streets. But BRT is adaptable to suburban environments and freeway medians when supported by appropriate access and land use coordination strategies.

Draft Administration SAFETEA Bill. The February 2003 draft of the Administration's SAFETEA bill, still undergoing interagency review and modification, proposes a number of positive steps in the pricing arena:

- Variable tolling projects for roads, bridges, and tunnels, would be "mainstreamed" as a part of the regular Federal-aid program.
- The numerical limit on the number of variable pricing projects would be eliminated, ending a major barrier to wider consideration and adoption of road pricing.
- The purpose for variable road pricing would be broadened to include air quality improvement in addition to congestion mitigation.
- Revenues from variable pricing projects could be used for any purpose authorized under Title 23, which could include support for transit capital and at least some operating expenses of transit, vanpool, and other projects.

On the other hand, the bill would eliminate important elements of the Value Pricing program:

- The legislative mandate for active Federal support for State and local pricing initiatives would be significantly diminished.
- Specific federal funds to support State and local pricing initiatives, including pre-implementation and operational activities, would be eliminated.
- The scope of project activity supported would be significantly narrowed from what was included under the TEA-21 program.
- The reauthorization proposal focuses exclusively on toll pricing initiatives, with other non-toll market-based congestion reduction initiatives, such as parking pricing and pay-as-you-drive insurance, not included in the scope of the proposed legislative language.

What other elements need to be part of a sound and balanced TEA-21 reauthorization value pricing program?

- Congress should encourage automated time-of-day tolls as a promising tool for transportation facility management and financing.
- States and transportation facility operators should be encouraged to replace obsolete toll booths that cause congestion and pollution with new barrier-free customer-friendly tolling systems using toll transponders and image processing and billing systems.
- Congress should encourage state motor vehicle agencies to issue toll transponders with motor vehicle registrations to encourage their widespread availability in states where tolls are used.
- Congress should eliminate restrictions on tolling highways that were constructed with federal aid, which can now only be tolled under limited pilot projects authorized by TEA-21.
- Congress should reauthorize the Federal Highway Administration's Value Pricing Program at a level of at least \$25 million a year and assure a well funded broad-based program to encourage state and local research and pilot testing of transportation user fee incentive strategies and other voluntary market incentive strategies. This should explicitly authorize support for initiatives such as Pay-As-You-Drive (PAYD) car insurance.

Federal Tax Treatment of Commuter Benefits: Still Not a Level Playing Field

Federal and state tax policies are a part of the recent story of transit resurgence and part of the story of the unlevel playing field. For the vast majority of working Americans, a free parking space at work has for decades been the sole commuter benefit offered by employers because that was until recently the only tax-free commute benefit worth speaking of. So if you drive alone to work you gain the benefit. If you take transit, carpool, walk, or bike, you lose the benefit and likely pay your own daily transit fare. With this kind of incentive, it's no surprise that on any given day nine out of ten American commuters drive to work and nine out of ten of the cars driven to work have one occupant. Yet the 85 million "free" or subsidized employer parking spaces actually cost American business more than \$36 billion per year. By spurring more driving, these subsidies exacerbate traffic congestion and air pollution. A 1995 congressional study found that "free" parking of all kinds costs our society over \$250 billion per year.

In 1998, Congress took steps to make tax policies more equal for all commuters, allowing employers to offer tax-free transit and vanpool benefits of up to \$100 a month, with taxable cash-in-lieu-of-parking benefits allowable for the first time. Tax-free benefit limits for employer-provided parking were set at \$175 per month - a practice which still leaves solo drivers at an advantage. Allowing employee-paid pre-tax transit benefits saves transit-using employees over \$400 a year while saving employers a smaller amount on withholding. Having employers pay for transit is a bigger incentive for employees. Offering such a benefit to federal executive agency employees in the national capital region induced 11 percent of employees who used to drive to work to switch to transit, taking 12,500 cars off the region's crowded roads every workday. At firms in California and Minnesota offering a \$2 a day incentive instead of free parking, one out of eight who used to drive are finding another way to get to work. Such benefits help employers attract and retain employees and provide the greatest help to low and moderate wage workers who spend the largest share of their incomes commuting and often ride transit, carpool, bike, or walk to work.

The cost of such employer provided transit benefit programs to employers is very small and can easily be fit within the scope of ordinary cost-of-living increases offered by most employers to their employees on a periodic basis. State tax credits can make this cost even smaller. For example, in Maryland, if an employer offers an employee a cost of living increase, for each \$1 in after-tax cost to the employer, the employee typically receives \$0.53 in after-tax income. If that same \$1 in after-tax employer expense is instead devoted to an employer-paid qualified transit benefit of \$60 a month, the typical Maryland employee who receives it ends up gaining \$1.76 in after-tax benefits, thanks to the leveraging effect of federal and state tax provisions.

The savings for employees offered by the federal tax law changes are significant and make a high level of employer and employee participation in the next several years realistic across America. For example, an employee earning \$50,000 per year who spends \$780 annually on transit (\$65/month) could realize a tax savings (at 42%) of \$328 as a result of paying their transit cost using pre-tax dollars, exercising one of the new Commuter Choice options, while their employer would gain payroll tax savings (at 7.65%) of \$60 per employee. Even if the cost to set up and administer the program equals 2% of the transit benefit, the employer will still enjoy payroll savings of \$44. Employers are likely to face new costs to offer transit passes or added cash income in lieu of parking, but these can also translate into substantial cost savings of several types. It is much cheaper for an employer to boost non-taxable employee benefits than to offer added taxable income or cost-of-living increases to retain or attract workers. If the employer is able to expand employment without adding more parking spaces or to otherwise avoid the cost of building, leasing, or maintaining parking spaces for workers, capital cost savings can amount to \$5,000 to \$20,000 per avoided space and operating costs can amount to \$750 to \$3,000 or more per year per avoided space. Such savings are often significant enough to more than pay for a cash-in-lieu-of-parking or transit pass benefit. But additional financial incentives and support by transportation agencies and other government bodies are essential to rapid adoption of Commuter Choice voluntary incentives. These can be highly cost-effective in reducing congestion and pollution.

DOT and EPA are promoting Commuter Choice, but Congressional action is needed to further expand efforts to foster widespread adoption of these voluntary incentives. EPA estimates that if half of all U.S. employees were covered under these commuter benefits, traffic and air pollution could be cut by the equivalent of taking 15 million cars off the road every year, saving American workers about \$12 billion in fuel costs. For every 10% of U.S. employees participating, commute VMT would be cut by 3.2%, or 20 billion miles, with emission reductions of 54,000 tons VOC, 480,000 tons CO, 33,600 tons NOx, and 2.36 million tons CO2. EPA estimates reductions of 26-30% in commute vehicle trips for a full Commuter Choice program.¹¹ Los Angeles research shows that those who receive free parking at work drive 72 cars per 100 employees, while those who paid for parking at work drove 53 cars per 100 employees, or 26% less.¹²

Congress should take further steps to encourage employer support for such 'Commuter Choice' initiatives by adopting:

¹¹ US EPA, *SIP Development Guidance: Using Emission Reductions from Commuter Choice Programs to Meet Clean Air Act Requirements*, Washington, DC 2000.

¹² D. Shoup, "An Opportunity to Reduce Minimum Parking Requirements," *Journal of the American Planning Association*, Winter 1995, pp. 14-28.

- The Commuter Benefits Equity Act (S.667) would provide equal tax-treatment for parking and transit benefits with \$190 per month in qualified tax-exempt benefits.
- The Bike Commuter Act (H.R. 1052) would allow employees who bike to work the same financial incentives as transit users.
- The Mass Transit Tax Credit Act of 2001 (H.R. 906) would provide a 25 percent tax credit to employers for the cost of providing transit benefits to their employees. This is modeled after measures adopted by several states - including Maryland, Minnesota, Oregon, Washington, Georgia, New Jersey - that have begun offering tax credits of up to 50 percent and up to \$50 per employee per month for employer-paid non-driving commuter benefits.

Reforming Transportation Planning and Project Reviews to Consider Pricing and System Management Options for Efficient Transportation

Increased reliance on motor vehicle user fees could provide a powerful means of meeting the rising demand for transportation investment and services and for matching that demand with transportation supply. But metropolitan and statewide transportation planning in most places currently gives only cursory attention to this capacity. Few areas consider the effects of different pricing schemes on travel demand and consider the effects of various transportation investment options on travel behavior, land use, and transportation system efficiency and operations.

Such evaluation typically requires use of metropolitan computer travel simulation models as used for project planning studies, regional and state transportation and air quality planning and programming, and environmental permitting decisions. Unfortunately, many of the analysis tools in widespread use fail to reflect current scientific knowledge and best practice methods. This can lead to serious errors in forecasts, in performance evaluation measurement, and poor investments that fail to meet their objectives. When road tolls are relied upon to service bonds, poor analysis can lead to failure to meet debt obligations, and taxpayers can be left holding the bag, as has happened with projects such as the Dulles Greenway in Northern Virginia. Congress should assure adequate funding for improving these computer models across America, funding the TRANSIMS model development and research effort at \$25 million a year and funding a \$35 million annual program to support timely deployment of best practice travel and emission models at metropolitan planning organizations and state agencies.

A number of scientific studies in recent years have documented the common sense adage, "If you build it they will come," that building more roads generates more traffic, often to a degree that the increased highway capacity does little or nothing in the longer run to abate congestion. A recent paper by two former EPA scientists, attached by reference, summarizes the literature, and shows that for every 10 percent increase in road lane miles, it is typical to find a 3 to 11 percent increase in vehicle miles traveled, with 8 percent being a typical median value.¹³

A 2002 analysis by the Metropolitan Washington Transportation Planning Board showed that by deferring 100 lane miles of highway expansion projects - a 0.5% reduction in lane-miles of road capacity - Virginia saved \$800 million in capital costs while *cutting* NOx emissions by more than 1%, or nearly 2 tons per day, and reducing vehicle miles of traffic by 0.6%. This illustrates how expansion of new highways often produces a growth in air pollution emissions and congestion by spurring more traffic, rather than a reduction in emissions and congestion as often claimed by the road lobby. This illustrates how reducing expenditures on new roads is often the most cost-effective emission and congestion reduction strategy, because it avoids generating costs, traffic, and air pollution.

This also illustrates why it is imprudent for motorist user fees to be dedicated solely to investments in highways, rather than to make these revenues available for what are often more efficient and effective forms of public investment that accomplish transportation-related purposes, whether for transit, the revitalization of walkable neighborhoods where people can live without generating so many car trips, affordable housing close to jobs, or public health services that help offset the hidden costs of our transportation system.

Considering those costs and choices will require improvements to the metropolitan transportation planning process which today expends little effort to consider transportation pricing and growth management strategies that could provide attractive alternatives to the current plan of business-as-usual deeply subsidized road system expansions that accommodate and support sprawl and driving while neglecting the needs of pedestrians, bicyclists, and those without cars. Improved data collection and impact analysis tools and planning requirements are needed to help state and local agencies evaluate and advance effective pricing and management strategies. These will also help address demands to streamline the project review process in a manner that delivers better projects that also protect the environment, public health, and the ability of the public and local officials to know about the effects of major decisions

¹³ Robert Noland and Lewison Lem, "A review of induced travel and changes in transportation and environmental policy in the US and the UK," *Transportation Research Part D*, Vol. 7, 2002.

before they are final, a core principal of the National Environmental Policy Act of 1969.

TEA-21 reauthorization should strengthen accountability, transparency, and performance-oriented planning requirements, assuring consideration of transportation pricing reforms. State and metropolitan areas should be required to develop and periodically update integrated transportation, natural resource protection, and growth management plans that consider at least one alternative scenario that considerably reduces traffic growth through better system management. Agencies should regularly report on the current and projected performance of their transportation system management, investment, and proposed programs and plans, accounting for cumulative and secondary impacts on growth patterns, public health, greenhouse gas emissions, the achievement of natural resource planning goals for air, water, and habitat protection, and the provision of equal access to jobs and public facilities for all residents, including those without cars, without undue time and cost burdens.

Conclusion

Across America, we are on a crash course with worsening traffic congestion, crumbling roads and bridges, and investment levels that can't even keep up with maintaining the infrastructure we've got. Throwing more money into road building and streamlining project reviews to curtail consideration of environmental factors in transportation decisions won't solve congestion. But better accountability, planning, consideration of pricing and system management alternatives, and support for new smart incentive strategies can help local and state agencies, business, and citizens cut their way through our traffic mess and boost transportation equity. Congress has a key role in helping state and local governments and their private partners make this transformation from trying to build our way out of congestion and into the new information era, where we manage congestion and expand choices and smart incentives.