



**VMT-Based Fees: Issues and Considerations from a Multi-State Perspective**  
**I-95 Corridor Coalition**  
May 26, 2009

**Purpose**

1. To define how the I-95 Corridor Coalition can contribute to the development of a multi-state VMT-Based Fee program, and
2. To position the Coalition as the logical choice to conduct a multi-state VMT-Based Fee case study or pilot project under new authorization legislation.

**Introduction**

This proposal outlines ways for the I-95 Corridor Coalition to make a positive contribution to the eventual use of VMT based fees, and is also intended to result in the Coalition being in a leading position to perform the first multi-state application or demonstration of VMT-based fees.

On May 5, 2009, the I-95 Corridor Coalition invited a group of experts to brainstorm this topic in order to gain input on the appropriate role for the Coalition in a multi-state VMT-based fee program or pilot, and also to gain input on a possible scope for a multi-state VMT-based fee case study project. With regard to the possibility of a Coalition pilot program, the brainstorming session reached the following recommendations:

**Summary - The Coalition's Pilot Program Should:**

1. Accommodate implementation of policy choices relative to issues such as environmental (greenhouse gas emissions), congestion (pricing), and social (poor or rural travelers) considerations, and the layering of these charges relative to each other (e.g., high emissions vehicle traveling in a congested urban area).
2. Address issues relative to the application of VMT fees on tolled facilities.
3. Address issues related to the institutions and procedures needed for fee collection and audit enforcement, including coordination with the IRS.
4. Address, in a simulated context, the collection of state fees to enable exploration of issues related to collection and distribution within individual states and across state borders.
5. Address public acceptability questions, including issues related to public attitudes and motivation, privacy, and public communications.
6. Help identify the functions of a national VMT fee system needed to accommodate the policy objectives of Coalition member agencies.

Each of these points should be addressed in any pilot program that the Coalition might develop. As a result of the brainstorming session and an assessment of the current status of pending legislation, the conclusion was drawn that the I-95 Corridor Coalition should not be designing a pilot project immediately but should rather assess the best ways for the Coalition

to make a positive contribution to the ability of states to implement multi-state VMT-based fees and that the Coalition should position itself for a potential leading role in and future demonstrations, case studies, or pilot programs.

With regard to future applications of VMT-based fees, the Coalitions should be guided by two primary questions:

- What don't we know yet that we need to know before VMT-based fees are implemented?
- What can the Coalition do to advance the potential for VMT-based fees?

In the brainstorming session and in subsequent analyses, four important areas were identified for which it was critical that solutions be found if VMT-based fees were to become feasible:

1. Technology
2. Privacy Issues
3. Public Acceptance
4. Institutional Arrangements

The technology choices have not been resolved yet, but there are many analyses that have been completed or that will address technologies. Applications of VMT-based fees within a single state have already addressed technology issues. In particular, the Joint Program Office is expected to conduct a further comprehensive set of research activities that will address and resolve the technological aspects of VMT-based fees as well as technologies for other applications of pricing, including congestion pricing and cordon pricing for central business districts. While multi-state compatibility and multi-state integration of technologies are important, the multi-state technology issues are not intrinsically different than such issues within a state.

Privacy issues have been addressed and resolutions identified in work by the University of Iowa/Minnesota project as well as other national studies. The issues surrounding privacy are addressable through design of information systems and technologies. Likewise, public acceptance is receiving wide attention, with many studies already concluded or underway. These issues are also not intrinsically of a multi-state nature, although coordination of multi-state data systems will be required to protect privacy.

### **Proposal**

The institutional arrangements area is one for which multi-state considerations raise special challenges, and for which the I-95 Corridor Coalition is already organized as a likely leader. No one has yet done a major demonstration with regard to the institutional aspects of administration of VMT-based fees. The multi-state, multi-toll agency institutional issues present challenges that have not yet been addressed at all in any of the single state or single urban area VMT-based fee studies to date.

However, with the experience of the Coalition with multi-state toll agency toll collections using EZPass, and the experience of the Coalition states with multi-state applications of the International Registration Plan (IRP) and the International Fuel Tax Agreement (IFTA), there are lessons and administrative structures which the Coalition could assess and potentially build upon.

The proposal for the Coalition in the near term is to assess what lessons for multi-state institutional and backroom operations is learnable from EZPass and other current applications such as IFTA and IRP. The near term assessment will identify how EZPass and other procedures could be adapted to the broader multistate VMT-based fee framework. The Coalition should convene a volunteer working group to guide this assessment.

The brainstorming session made the following observations about the institutional aspects which should be addressed:

#### Framework and Revenue Collection/Distribution

- One of the big unknowns with a VMT-based fee program is the cost to administer.
- Appropriate revenue distribution among and within states will be a key element to the program's success.
- The framework is what's important for a multi-state study, not the technology.
- Two existing multi-jurisdictional revenue collection systems are already in place and could be a model and/or expanded for a VMT-based fee Program:
  - IFTA and IRP
    - Expand beyond commercial vehicles
  - Toll Road Systems
    - Use the model, not necessarily the toll authorities themselves
- Not all users want to be billed in the same way.
- If fees will be collected, a demonstration will not work. Fees should be collected after a system is in place. Consider the use of "play" money rather than real money to change hands; the demonstration would be for collecting information only. Conversely, consider collecting real fees for the federal portion, and simulated fees for the state portion.
- Pricing considerations should include:
  - Caution in adjustments for personal economic standing (adjusting for the poor may be perceived as social engineering), and
  - How to deal with toll roads vs. non-toll roads
- Should VMT-based fee programs become reality, a national system architecture will likely develop. The Coalition, however, should proceed with its VMT-based fee project in the interim (and possibly provide input to a national architecture).

Not all of these aspects will necessarily be addressed in the near term. The proposal is for the initial efforts of the Coalition to address the following specific elements:

### **1. Identify the Institutional and Administrative Requirements of a Multi-State VMT-Based Fee System**

These will include but not be limited to legal structures for collecting VMT-based fees, and the identification of administrative functions that must be performed. Administrative functions will include but not be limited to identification of specific state and multi-state administrative units and their respective responsibilities; enrolling participants (volunteer or mandatory); accumulating mileages by state and by toll agency; calculating and reconciling state and agency mileages; calculation and billing of fees (with consideration that there may be multiple methods of billing); and utilizing credit and debit card-based payment procedures.

## **2. Assess Current Administrative Systems and Identify Desirable Modifications**

The Coalition already has resources consisting of the overall procedures and agreements for the administration of EZPass revenues among the respective toll agencies, and the participation of Coalition states in the IRP and IFTA. For toll agencies, there is already an arrangement wherein the backroom functions allow reconciliation and billing for users of all facilities. For the fuel taxes and registration fees paid by heavy vehicles, the IRP and the IFTA already provide a mileage-based system of fee collection and fee distribution, limited of course to heavy vehicle interstate travel. The effort should provide a preliminary assessment of the ability of these functions to be expanded to cover VMT-based fees for light duty vehicles.

## **3. Identify Alternative Mechanisms for Administration**

The Coalition should not necessarily proceed under the assumption that the existing administrative and institutional arrangements can be expanded upon successfully or that if they were expanded that this would constitute the most desirable means to administer multi-state VMT-based fees. Additional mechanisms should be assessed such as a new clearinghouse for multi-state VMT-based fees, or the potential for a federal-based system of calculation of state VMT-based fees (which would be associated with a federal VMT-based fee structure.)

## **4. Make a Preliminary Estimate of the Costs of Administration and Enforcement Under Different Options**

The most important barrier to VMT-based fees may likely be the challenge of administrative and enforcement costs. The current fuel tax structure which is applied by states deals with very few entities from which the tax is actually collected. Administrative and compliance costs are very low. VMT-based fees by their very nature will be collected from a much larger number of entities. Since light duty vehicles are owned and operated by most households and businesses within the Corridor states, procedures will be needed to collect fees more directly from those entities. The registration mechanism is now the only regularized administrative interaction which states have in place that deals directly with these entities. Registrations can however be multi-year and do not now require the confirmation of any information about usage of the vehicles.

Various previous estimates of the costs of administration of VMT-based fees or congestion pricing have been made for the national level or as parts of specific demonstration projects. Much of the cost will involve the technologies, which will be adequately addressed elsewhere. The need here is for an estimate of the back office and administrative costs.

## **5. Identify the Critical Elements of a Potential Pilot Program**

These have already been identified as a result of the brainstorming session, as summarized in the six points listed on page one. The potential Pilot Program will be fleshed out based on the six points and upon the requirements of any national legislative proposals that would foster pilot programs.

## Notes of the Brainstorming Session

*Note: With the exception of the final summary section, the notes provided here capture the thoughts raised during the brainstorming session; they do not reflect a consensus among attendees.*

### Test Bed vs. Early Deployment

- The term “test bed” may suggest that the Coalition is reactive – waiting for the government or other groups to define the system. Early deployment in the form of a pilot program would be proactive and the preferred choice.
- The choice isn’t mutually exclusive; the Coalition region could provide both a pilot deployment project and serve as a test bed.
- The focus should be on early deployment over studies.

### User Groups and Allies

- Because the insurance industry has the capability to determine fees through VMT technology, they may serve as an ally on common technology interests.
- Open road tolling partnerships (public and private) would be beneficial.
- Competition among private sector firms should lead to innovation on the technology side.
- The more allies, the better.

### Revenue Neutral vs. Additional Revenue Generation

- Revenue Neutral
  - Increasing revenues in a pilot program would make it difficult to obtain volunteers.
  - A revenue-neutral pilot can look at the results on a dollar-to-dollar comparison to the motor fuel tax to determine how the systems compare.
  - A revenue-neutral pilot can demonstrate flexibility.
- Additional Revenue Generation
  - Since needs are not currently being fully met; this program should advance net new revenue.
  - The states will only band together if the program is attractive compared to current pricing and revenues.
  - Sticking with revenue-neutrality hides some of the greatest benefits of a VMT system (system flexibility relative to policy choices).

### Framework and Revenue Collection/Distribution

- One of the big unknowns with a VMT-based fee program is the cost to administer.
- Appropriate revenue distribution among and within states will be a key element to the program’s success.
- The framework is what’s important for a multi-state study, not the technology.
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hands; the demonstration would be for collecting information only. Conversely, consider collecting real fees for the federal portion, and simulated fees for the state portion.

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#### Federal Fees vs. Federal-State-Local Fees

- There's nothing to be gained in a multi-state pilot vs. a single-state pilot if the focus is on federal fee collection only.
- If the focus is on federal fees only, then it's not a true institutional test.
- The IRS is the only agency with the ability to collect revenues for the federal government and a federal VMT system would need to comply with IRS requirements.

#### Public Perception and Education

- Public acceptance is a major issue in pulling the pieces of a VMT-based fee program together.
- Public acceptance would improve if additional technology features (e.g., VII safety or mobility applications) were enabled and if the pilot extended for a longer period (allowing the user market to gain knowledge).
- Some studies suggest that the public generally supports tolling and road pricing when they understand the projects. It would be imperative to educate the public on the current system (and its faults), the purpose of a VMT-based fee, and the resulting benefits.
- Privacy issues will be a primary concern of the public; education on how the data will be used is important.

#### Technology

- A primary decision on a multi-state pilot is whether the test would be technology-neutral or a technology demonstration program.
- An open architecture and/or open platform, and open interfaces would allow 3<sup>rd</sup> party providers to build on that platform – allowing competition among the private sector and supporting technology advances.
- The focus of a multi-state pilot should not be on vehicle technology; what's important is the program's administration. The vehicle technology can be resolved by working with private industry through the provision of standard specifications to count and report miles traveled. Motorists can select devices based on privacy concerns, payment options, etc.
- A pilot program can enable various technologies to be deployed.
- The On-Board Diagnostics (OBD) port found on all modern vehicles could be used as the basic in-vehicle technology and allow the pilot to focus on the institutional framework, rather than on technology. The OBD port provides a higher level of automation than odometer readings; however, it does not have geographic location capabilities. This might be an issue in the collection and distribution of revenues.

#### Congress, Legislators and USDOT

- The dialogue with legislators should start now to determine and garner support (and avoid surprises). Early discussions might also trigger a positive competition among the states by highlighting specific advances and accomplishments.

- Congress has limited knowledge and awareness on the subject and will likely be seeking advice and guidance.
- If Congress pursues a truck test, they'll need a structure and the Coalition could serve this purpose.
- The results of current and planned VMT-based fee programs will become available during the upcoming Authorization period, and VMT-based fee programs may not be mandated in this Authorization.
- A Congressional champion, as well as champions at the state level, would be beneficial to the Coalition's efforts.
- The likelihood of getting three contiguous state legislatures to go forward with a program is a limiting factor.
- Incentives needed to get state legislatures on board should be defined.

Additional Considerations and Unique Opportunities for the I-95 Corridor Coalition:

- To date, only small scale pilot programs have been attempted; the I-95 Corridor Coalition could conduct a large-scale multi-state demonstration. The Coalition's demonstration would need to add value over and above the results of a single-jurisdiction test.
- The two reports of the National Transportation Commissions have triggered action and the Coalition needs to ensure that it follows a path to the future and not to a high profile pilot failure. Significant planning is needed to ensure that a successful path is followed; following a pilot failure would set back VMT efforts.
- Auditing and enforcement need to be addressed in all VMT-based fee programs.
- A multi-state pilot should:
  - Be voluntary (and attract volunteers)
  - Test and prove institutional arrangements that allow it to work
  - Address border issues
  - Serve as a model for a national effort
- More than one strawman proposal might be developed to shop the various options with the states to determine interest in the program and in volunteering to participate.

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