2010 Symposium on Mileage-Based User Fees: Moving Forward

MOVING TO A VMT-FEE SYSTEM: TRANSITION CONSIDERATIONS

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Attributes of a Road Charge System

1. Accommodate all vehicles regardless of propulsion system
2. Accommodate fuel tax collection until fuel taxes can be replaced by VMT fees
3. Apply to all roads and jurisdictions
4. Be capable of assessing higher charges to users who impose higher costs
5. Technology used must:
    - Accurately calculate distance driven, regardless of time, road and place of travel
    - Allow charges based on fuel efficiency, vehicle weight and emission level

Attributes of a Road Charge System (cont'd)

6. Ensure the privacy of road users, and be secure and reliable

7. Be flexible and accommodate future changes in technology and a variety of public policies

8. Generate a stable revenue stream that is able to grow as transportation needs grow

9. Ensure a 'low' rate of evasion

10. Ensure that collection costs are not burdensome to agencies or users

Transition Elements

- Vehicles

- Roads and Jurisdictions

- Geographic Coverage

- User Participation Approach

- Replacement of Transportation-Related Taxes/Fees

- Mileage Charge Rate Structure

- Basis for Mileage Rate Structure
- Technology

Transition Elements

Vehicles:

- Alternative-fuel vehicles only (not paying fuel taxes)

- Current /new vehicles equipped with on-board units and technology, regardless of propulsion system

- Heavy trucks (over 26,000 lbs)

- Automobiles and light trucks

- All vehicles including heavy trucks

Transition Elements (Cont'd)

Roads and Jurisdictions:

- Interstate system (federal roads)

- Interstate and trunk highway system (federal and state roads)

- Trunk highway system plus other principal arterials (including county roads)

- All roads (including city and township roads)

Transition Elements (Cont'd)

Geographic Coverage:

- Urbanized area (e.g., seven-county area in Twin Cities)

- Urban and rural sub-region (e.g., seven-county area plus collar counties Minnesota)

- Statewide

- Multi-state region

- Nationwide

Transition Elements (Cont'd)

Participation Approach:

- Voluntary with incentives

- Voluntary without incentives

- Mandatory (once fuel taxes are phased out)

Transition Elements (Cont'd)

Replacement of Transportation-Related Taxes:

- Fixed taxes and fees (tabs, excise tax, registration fees)

- Fuel taxes (variable)

- All taxes and fees

Basis for Mileage Rate Structure:

- Maintain revenue neutrality (for individual users)

- Maintain revenue neutrality (for all users combined)

- Recover internal costs based on a more realistic estimate of costs imposed

- Recover internal and some external costs based on a more realistic estimate of costs imposed

Transition Elements (Cont'd)

Mileage Charge Rate Structure:

- Flat fee per mile
- Vary per-mile fee by:
  - Fuel efficiency
  - Vehicle class and weight
  - Facility type
  - Time of day (in congested areas)
  - Emission level
  - Urban vs. rural driving

Transition Elements (Cont'd)

Technology:

Issue: Rate of replacement of auto and truck fleet

- Use of available in-vehicle technology such as odometer and OBD-II, and cellular communications

- Retrofitting, using after-market devices
- Phasing-in of anticipated factory-installed GPS and other relevant technologies

Implementation Issues

1. Policy decisions should drive technical approaches and solutions
2. National policy framework needs to be in place to guide local-area implementation decisions
3. Need for large-scale implementations, not demos
4. Clear objectives (e.g., travel and congestion management versus revenue generation)
5. Need for extensive outreach and education with users, policymakers, legislators
6. Revenue allocation: Among jurisdictions; to roads where fees are collected; to roads where demand is highest; to transit improvements

Implementation Issues (cont'd)

7. Role of exceptions and exemptions: They help achieve consensus but introduce equity problems
8. Understanding the effect of pricing implementation decisions on different user-market groups
9. Trade-off between privacy and auditability: A customer choice?
10. Potential erosion of pricing revenues and benefits over time (VMT reduction, inflation, changes in road use
11. Applications beyond VMT and congestion pricing: safety features, traveler information, PAYG insurance, parking
12. Interoperability with legacy systems
13. Avoiding unnecessary complexity: Erodes support and drives up cost