The Oregon Mileage Fee Concept and Road User Fee Pilot Program

Presented to

*Mileage Based User Fee Symposium*

Austin, Texas
April 14, 2009

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Road User Fee Task Force

Legislative Mandate:

“To develop a design for revenue collection for Oregon’s roads and highways that will replace the current system for revenue collection.”
Task Force Selection

The Mileage-based fee

The Challenge
Create a system to emulate best attributes of the gas tax
RUFTF Policy Directives to ODOT

- System must cover all motorists
- Not charge out-of-state mileage
- Protect motorist privacy
- Provide gas tax credit
- Low capital costs
- Low relative operating costs
- Enforceability
- System reliability
- Seamless transition
- Minimal burden on private sector
- Allow congestion pricing
Creation of Zones

Charge on miles driven within Oregon by zone

Zone 1 = in state
Zone 2 = out of state
Zone 3 = rush hour
Zone 4 = local option
Mileage Charge Collection at Fuel Pump

- Electronic collection of VMT data and fee payment at fuel pump
  - Covers all resident mileage
  - Protects location privacy
  - Integrates with fuel tax
  - Affordable
  - Enforceable
  - Gas tax as back-up system
  - Familiar payment system
  - Motorist friendly
Mileage Charge Collection System
VMT Data Processing and Fee Charging

- Data Transferred
  1. Vehicle Device Identification
  2. Mileage Totals for Each Zone
  3. Fuel Purchase Amount

- Mileage Fee Rates Applied
The Receipt

Fuel tax deducted from fuel purchase price

Mileage fee imposed as part of fuel purchase

Leathers Fuels
11421 SE Powell Blvd
Portland, OR 97266

Pump# 1 Unleaded
19.50 @ 2.549 49.71
ST Fuel Tax @ .24 (4.68)
VMT Fee: 5.05
Rush Hour: 40
In-Oregon: 364.6
Non-Oregon: 0
No Signal: 0
Subtotal 50.08
Total 50.08
Cash 50.08
Thank You!
What About...

... Non-equipped cars?

... Heavy Trucks?
Capital and Operating Costs for Full Mileage Fee Implementation

Vehicles
- No mandated retrofitting
- Components installed in new vehicles prior to sale

Service Stations
- Capital costs: $35 m
- Annual operating costs: $2 m
Privacy

No data transferred except mileage totals within zones

Data transferred only at time of fueling via short range radio frequency

No vehicle location data stored in vehicle
Receiving Not Transmitting Location Data

Satellite Signals

On-Vehicle Device

mileage reader

GPS Satellite
No Detailed Travel Map Involved
No Travel History Developed
Road User Fee Pilot Program

April 1, 2006 to March 25, 2007
Objectives for Pilot Program

Prove concept
- Basic per-mile charge
- Congestion pricing

Define development pathway
- Identify problematic system components
- Identify technology requiring further refinement
Adaptability for Congestion Pricing

Area Pricing

• Separate “rush hour” zone during peak periods

• Higher VMT fee rates for driving within rush hour zone
Oregon Pilot Program Field Test

285 participant passenger vehicles
Compensation $300 per vehicle
Control phase & experiment phase

Three zones
- *In Oregon*
- *Not in Oregon*
- *Rush Hour*

Three test groups
- *Control group* paid state gas tax
- *VMT group* paid 1.2 cents per mile but no state gas tax
- *Rush hour group* paid 10 cents per mile in congestion zone and .43 cents per mile for regular travel but no state gas tax
Oregon Pilot Program Technology Configuration

- On-vehicle device technology
- Fueling station technology
- Data storage/retrieval technology
Final Results: Proof of Concept

Successes

• Zone differentiation
• Mileage counting
• Vehicle identification with fuel pump
• Transmission accuracy
• Transaction administration
• Reduced peak driving 22%
• Acceptance by participants

Fundamental Lesson

• Mandated retrofitting extremely difficult
Public Concerns

- Efficiency of system
- Confidence in system
- Privacy and fear of technology
- Rate structure
- Rate equity
- Road pricing
- Perceptions of large bureaucracy
- Motorist class wars
- Flexibility a strength or a weakness?
Key Steps to Implementation of Oregon’s Pay-at-the-pump System

- Refine technologies to commercial viability
- Define manufacturing standards
- Address concerns of fuel distribution industry
- Integrate collection system for all-electric vehicles
- Investigate alternative approaches