



**Oregon Department of Transportation**



# The Oregon Road User Fee Concept and Pilot Program

Presented to  
***Colorado Transportation Finance  
Conference***

**Denver, Colorado  
May 30, 2007**

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Office of Innovative Partnerships  
and Alternative Funding***





## 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.”



## The Gas Tax – A Nearly Perfect Tax

### Advantages:

- **Raises substantial revenue**

Provides 60% of Oregon road revenue

- **Ease of payment by consumer**

Included in fuel bill, allows cash or credit payment

- **Ease of collection**

Embeds collection within commercial transactions: paid by distributor, reimbursed by retailer and consumer

- **Easy to administer**

Small number of taxpayers



## The Gas Tax – A Nearly Perfect Tax

### More Advantages:

- **Low cost of administration**  
Auditing cost only \$1.5 million annually
- **Minimal evasion potential**  
Few illegal gasoline sales
- **Protect privacy**  
Paid anonymously by consumer
- **Minimal Burden on Business**  
Business bears burden of evaporation before sale



## The Gas Tax – A Not So Perfect Tax

### Disadvantages:

- **Disconnection to Highway System**

Not directly connected to burden vehicle places on state highway system

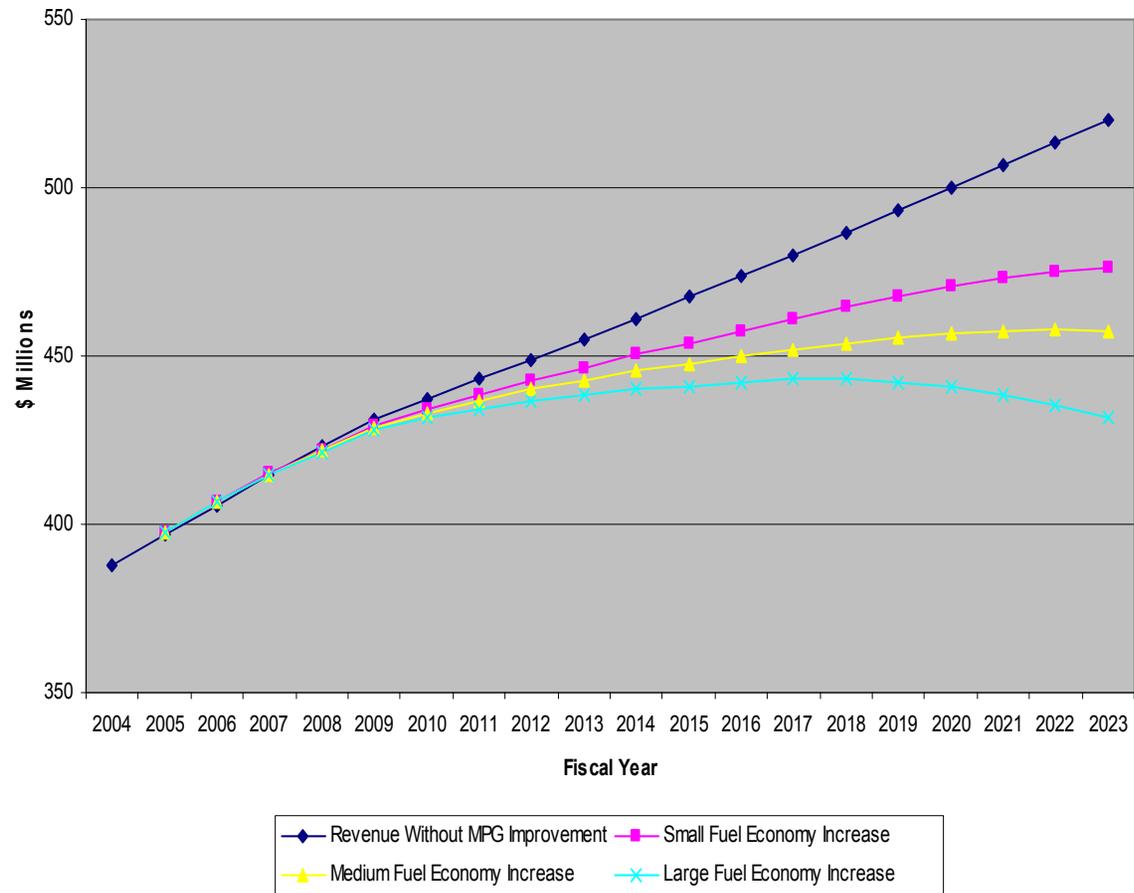
- **Revenue Erosion**

Vehicle fuel efficiency improvements reduce gas tax payments per VMT



# Effect Highly Fuel Efficient Vehicles will have on Future Highway Fund Revenue

LIGHT VEHICLE FUEL TAX REVENUE





## Road User Fee Task Force



### Mission Undertaken by ODOT

*Create a new road revenue system mirroring as closely as possible the advantages of gas tax collection but with fewer disadvantages.*



## Solution: *The Mileage Fee*

- A per-mile charge based on Vehicle Miles Traveled (VMT) within a state
- Replaces fuel tax for participating motorists



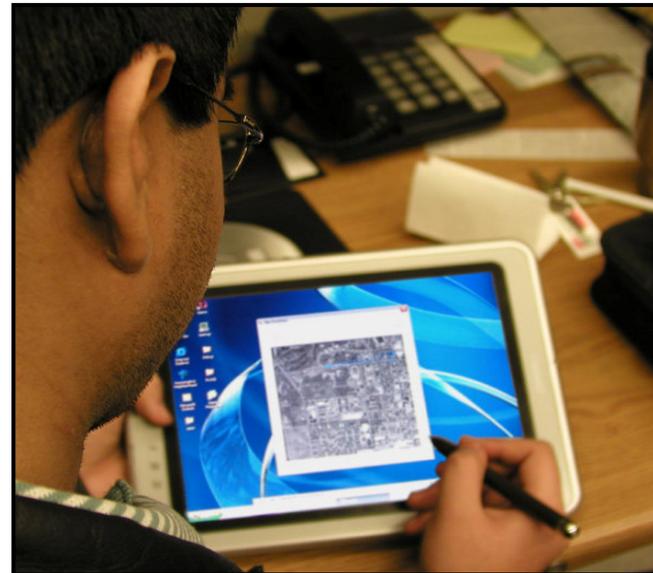
### Advantages

- Connects vehicle use to road system
- Removes fuel efficiency erosion factor



## Structural Issues with Mileage Fee Collection

- Start up and operations costs
- Collection enforcement
- Integration with current fuel tax collection system
- Seamless transition
- System redundancy
- Ease of use by motoring public





## Collection Possibilities



### Human Data Gathering

- Operations Costly
- Collection Enforcement Problematic
- No Gas Tax Integration
- No System Redundancy
- Not Motorist Friendly



### Centralized Collection

- Operations Costly
- Collection Enforcement Problematic
- No Gas Tax Integration
- No System Redundancy
- Not Motorist Friendly



### Collection at Fueling Stations

- Solves All Structural Issues



## Oregon's Mileage Fee Concept

### Two Purposes:



1. Creation of reliable, broad based charge to replace fuel tax as principal road funding mechanism
2. Creation of an electronically collected charge to assist management of road congestion levels



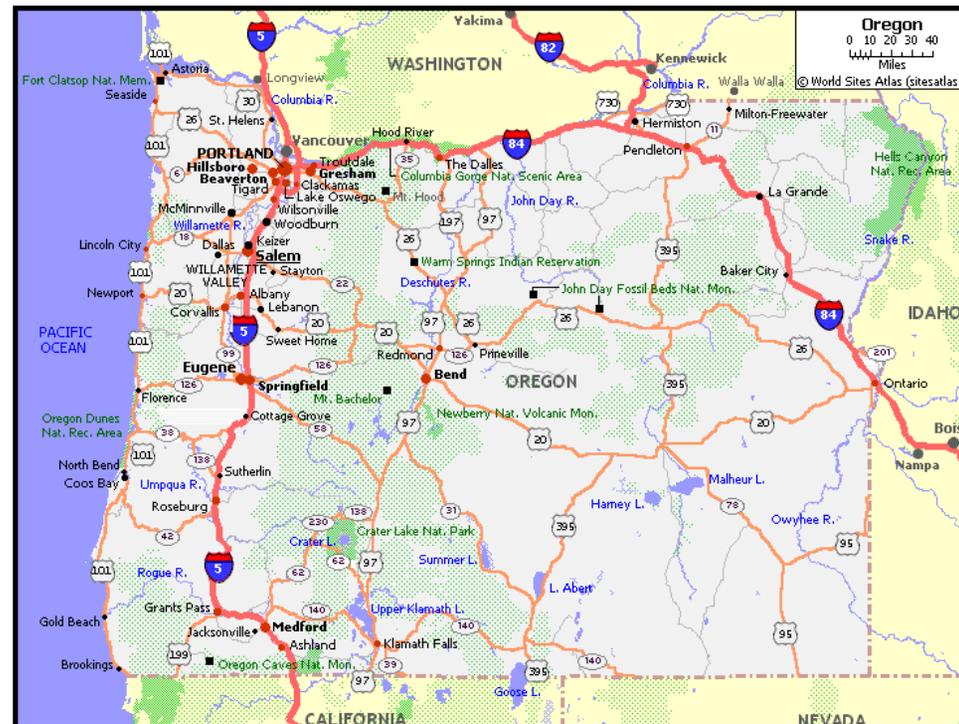
# Oregon's Mileage Fee Concept

A per-mile charge based on miles driven within Oregon by zone.

Zone 1 = in state

Zone 2 = out of state

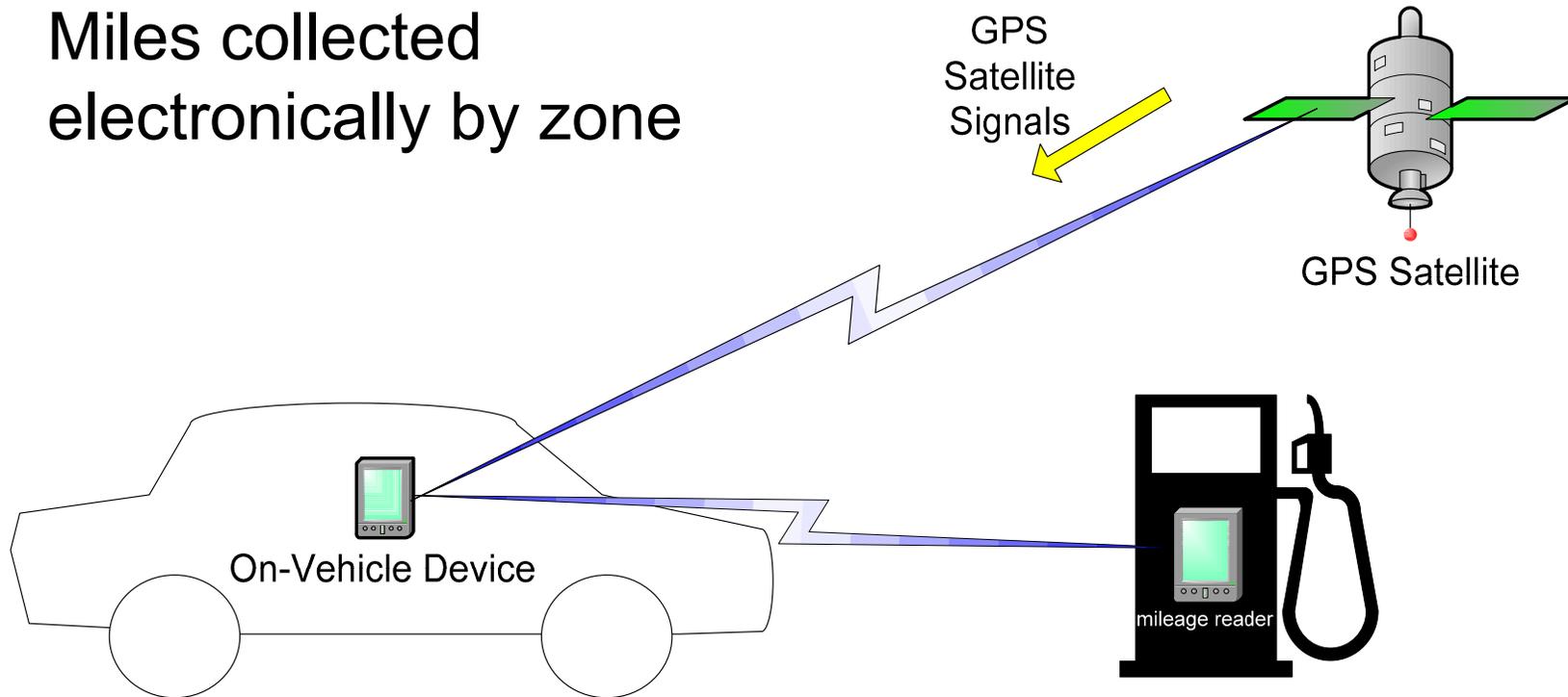
Zone 3 = rush hour





## Characteristics of Collection

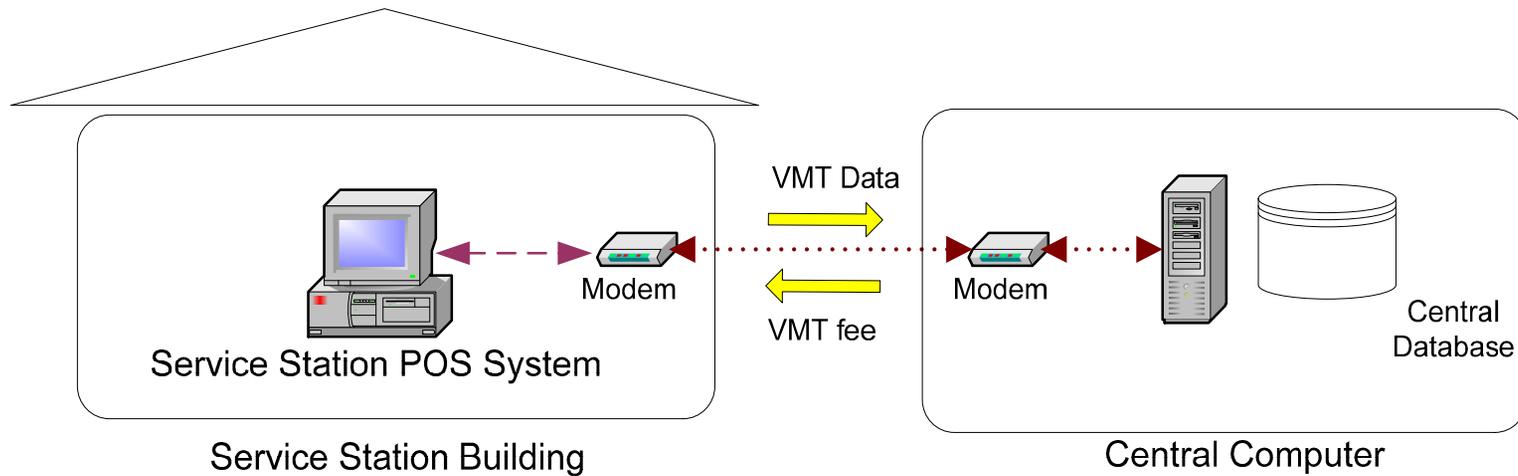
Miles collected electronically by zone





## Characteristics of Collection

**Process VMT data and charge the proper fee**





## Characteristics of Collection

CSR

R# 1 S# 1 T# 882316 10:55 AM  
06/09/06

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 :	5.12
Rush Hour :	40
In-Oregon :	28.6
Non-Oregon:	0
No Signal :	0
Subtotal	50.15
Total	50.15
Cash	50.15

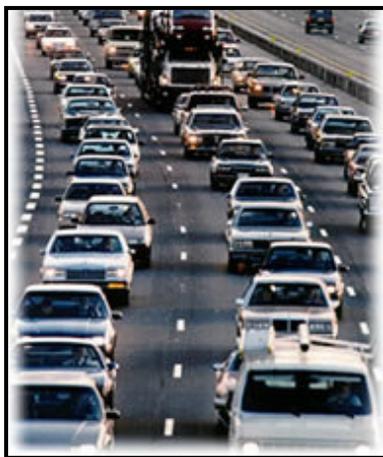
Thank You !

- Mileage fee imposed as part of fuel purchase
- Fuel tax deducted from fuel purchase price



## Key Features

- Oregon's weight-distance tax retained for heavy vehicles
- Fuel tax maintained for non-equipped vehicles

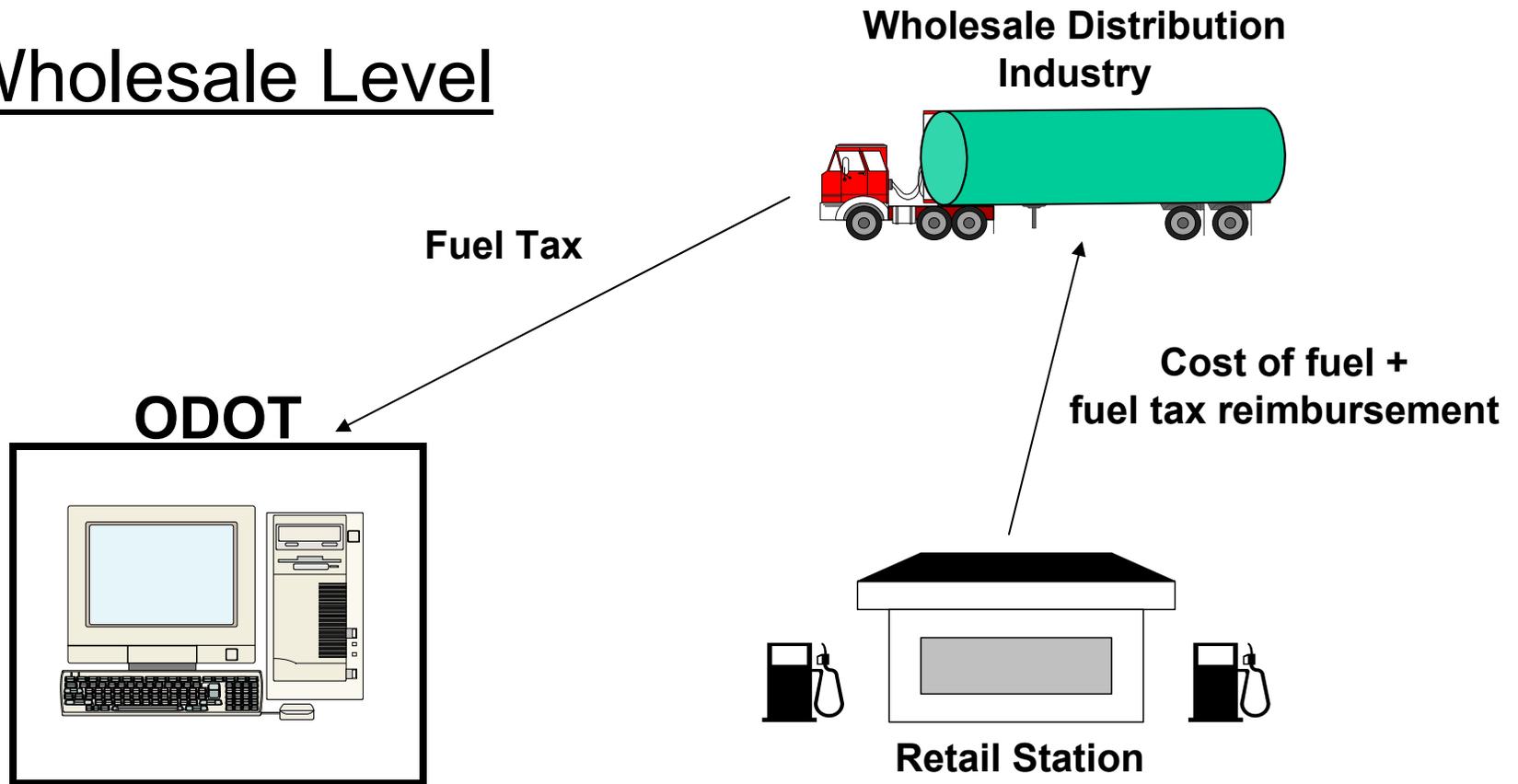


- Mileage fee integrates with existing fuel tax collection system



# System Integration: No change in gas tax collection

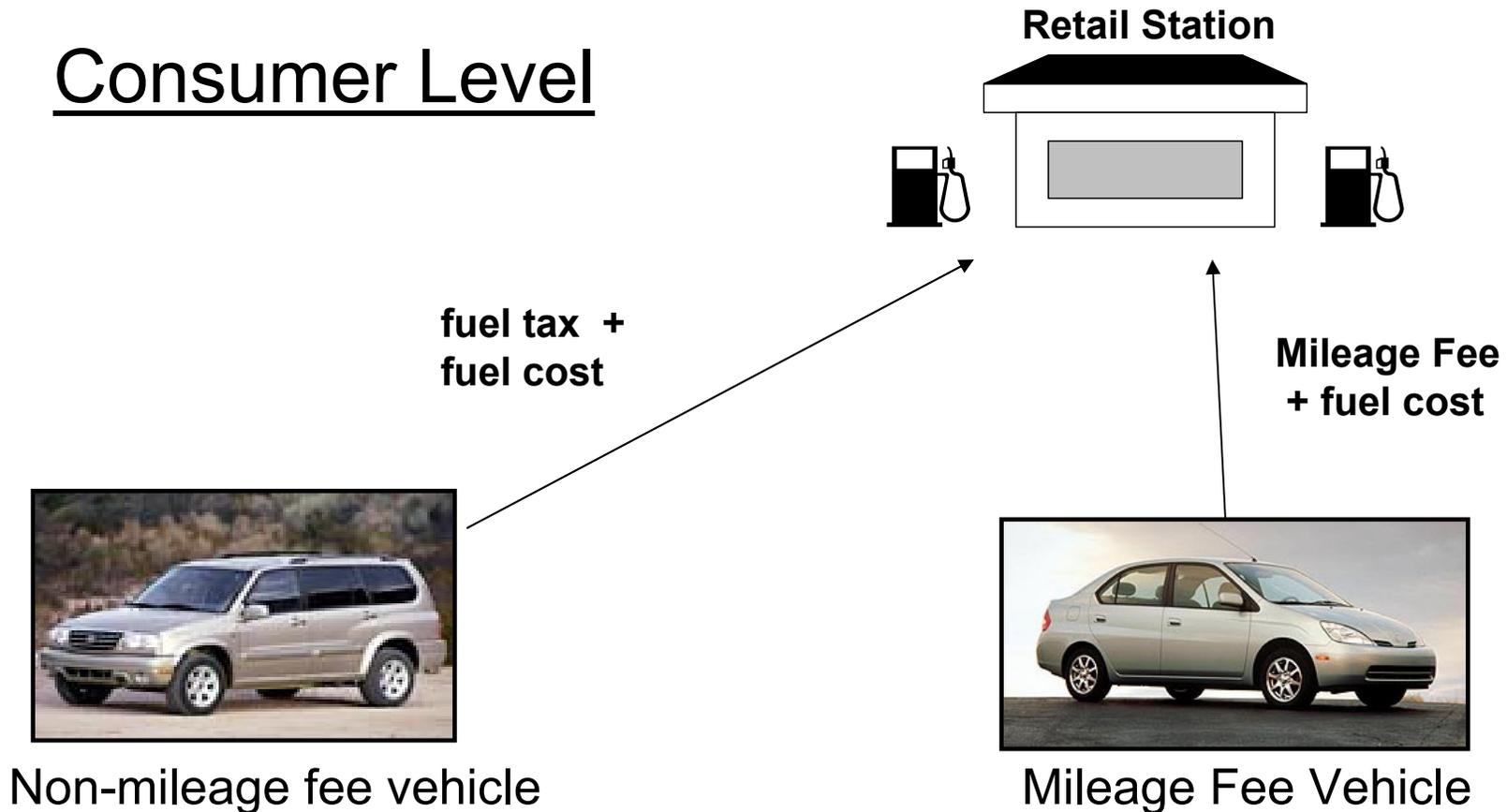
## Wholesale Level





# System Integration: Consumers pay either fuel tax or mileage fee, not both

## Consumer Level





## System Integration: Tax data periodically run through a “true-up” calculation by ODOT



- If fuel taxes + mileage fees collected are less than fuel tax paid for fuel, ODOT remits the difference
- If total fuel taxes + mileage fees collected exceed fuel tax paid for fuel, ODOT sends a bill for the balance due



## System Integration

Mileage Fee System integrates into fuel tax system via “truing up” accounting process at retail

### Advantages:

1. Bulk of revenue stream remains at distributor level (fewer taxpayers)
2. Mileage fee gradually becomes predominant
3. Fuel tax retained as redundant system to guard against system failure and tampering





# Capitol Costs for Full Implementation in Oregon

## Vehicles

- No retrofitting
- Components installed prior to sale of new vehicles



## Service Stations

- Oregon capital costs: \$35 million
- Annual state operating costs: \$1.6 million





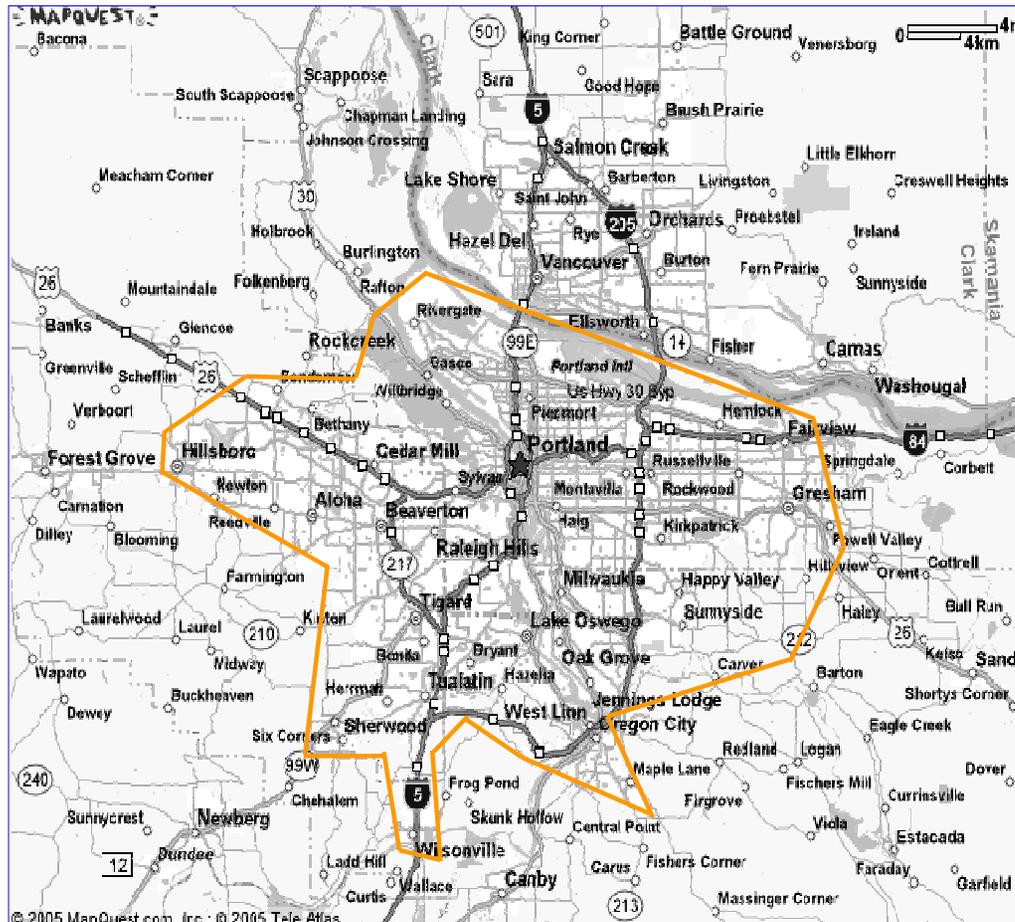
## Privacy

- No vehicle location data stored in vehicle
- No data transferred except mileage totals within zones
- Data transferred only at time of fueling via short range radio frequency





# Multi-Jurisdictional and Variable Pricing Applications



## Local Option

- Defined boundaries
- Differing rates

## Area Pricing

- Higher rates at peak periods



## How Oregon Mileage Fee Compares with Gas Tax

**Raises substantial revenue**

Initially raises as much as gas tax then more

**Ease of collection**

Bulk of collection stays with gasoline distributors

**Easy to administer**

Integrated with gas tax collection; only tax differential collected from gas retailers

**Ease of payment by consumer**

Included in fuel bill, allows cash or credit payment (same as gas tax)



## How Oregon Mileage Fee Compares with Gas Tax

**Low cost of administration**

Auditing cost only \$1.6 million annually

**Minimal evasion potential**

Tampering with mileage fee collection device results in payment of the gas tax

**Protect privacy**

Places driven not revealed but place of gasoline purchase revealed

**Minimal Burden on Business**

Business bears burden of accounting



Oregon Department of Transportation



# Road User Fee Pilot Program

April 1, 2006 to March 25, 2007



U.S. Department of Transportation

Federal Highway Administration





## On-Vehicle Device



GPS  
Antenna

RF Antenna

OBDII Port



## On-Vehicle Device

### Display

Rush Hour :	50.6
In Oregon :	1,200.7
Non Oregon:	100.0
No Signal :	0.9





# Fuel Station Equipment



## Mileage Reader





## Visitors to Road User Fee Pilot Project



October 26, 2006

USDOT Secretary

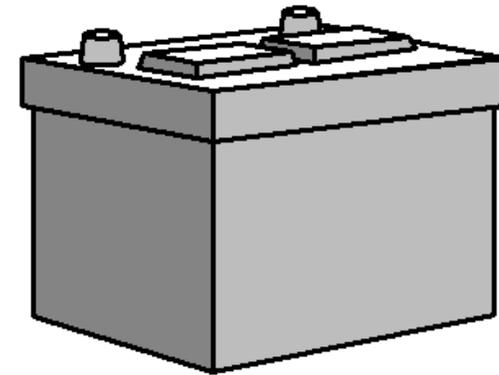
Mary Peters



## Preliminary Results

### Successes

- Zone Differentiation
- Mileage Counting
- Transaction Administration
- 85% Transmission Accuracy
- 91% Acceptance by Participating Motorists



### Needs More Work

- Transmission Accuracy
- Transaction Time at Pump

### Lessons Learned

- Retrofitting Extremely Difficult
- Technical Assistance to Fuel Stations



## Final Results

- Technology Assessment
- Administrative Assessment
- Behavior Assessment
- Participant Survey
- Identification of Implementation Issues



*Report Due: September 2007*



## Key Steps to Implementation of Mileage Fee

1. Refine Technologies and Investigate Alternatives
2. Define Manufacturing Standards
3. Address Concerns of Fuel Distribution Industry
4. Integration with Other Revenue Collection Systems
5. Study Effects
  - Sociological
  - Economic
  - Environmental
  - Income Distributional
  - Energy
6. Develop Model Legislation





## Next Steps: Technology Development

- Increase “read rate” at Pump to 99.99%

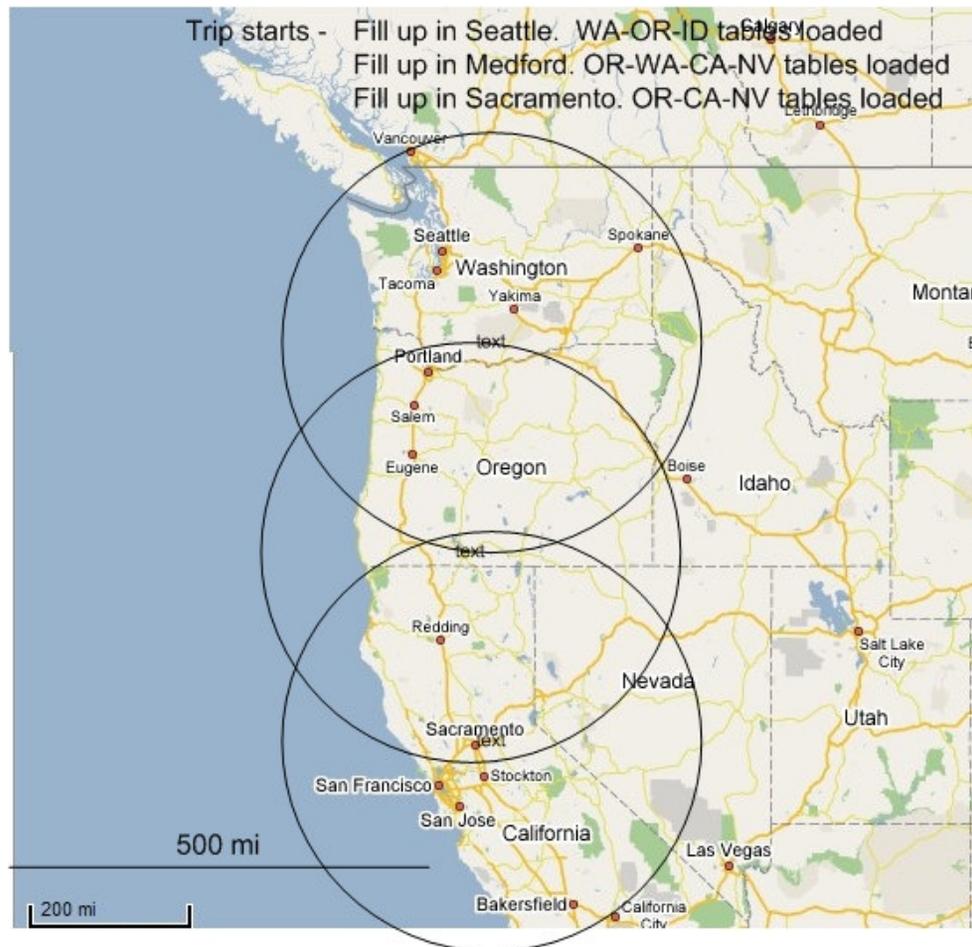
Test alternative technology: VII DCRS, Magnetic Coupling



- Ensure vehicle compatibility
  - Manufacture technology into vehicle
  - Installation before vehicle sale
- Multi-state simulation for updating zones and rates



## Next Steps: Adjustments to Geographic Zones and Rate Tables



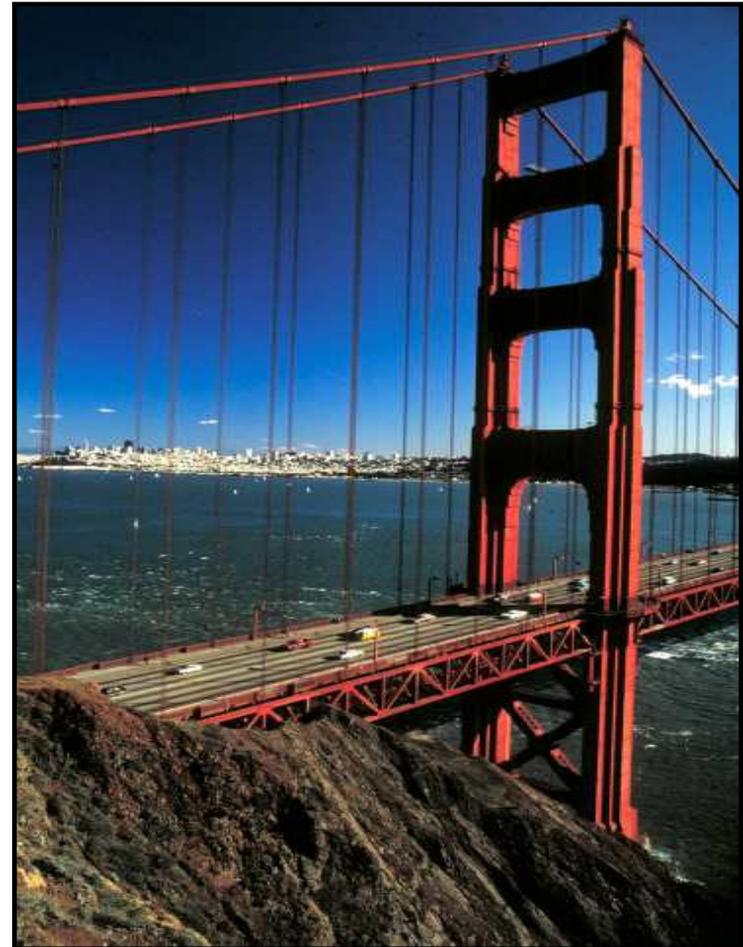
- Electronic updates within 500 miles of fueling
- Allows frequent changes to local pricing and taxing schemes



## Additional Use Possibilities

### Pricing Specific Facilities

Tolling new bridges or roads,  
point or distance

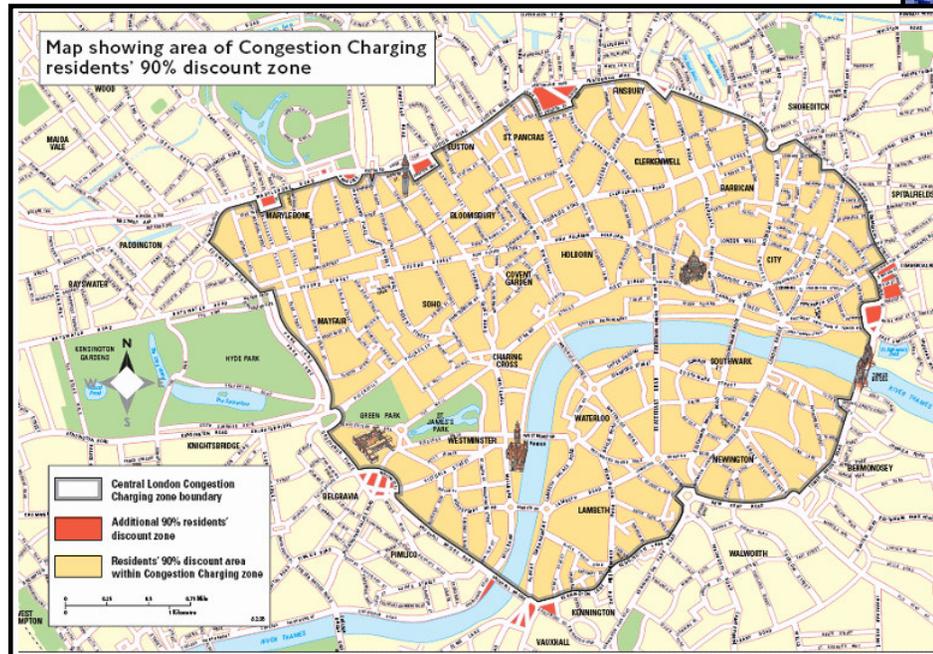




## Additional Use Possibilities

### Cordon Pricing

Point charges without cameras, back room operations or central billing



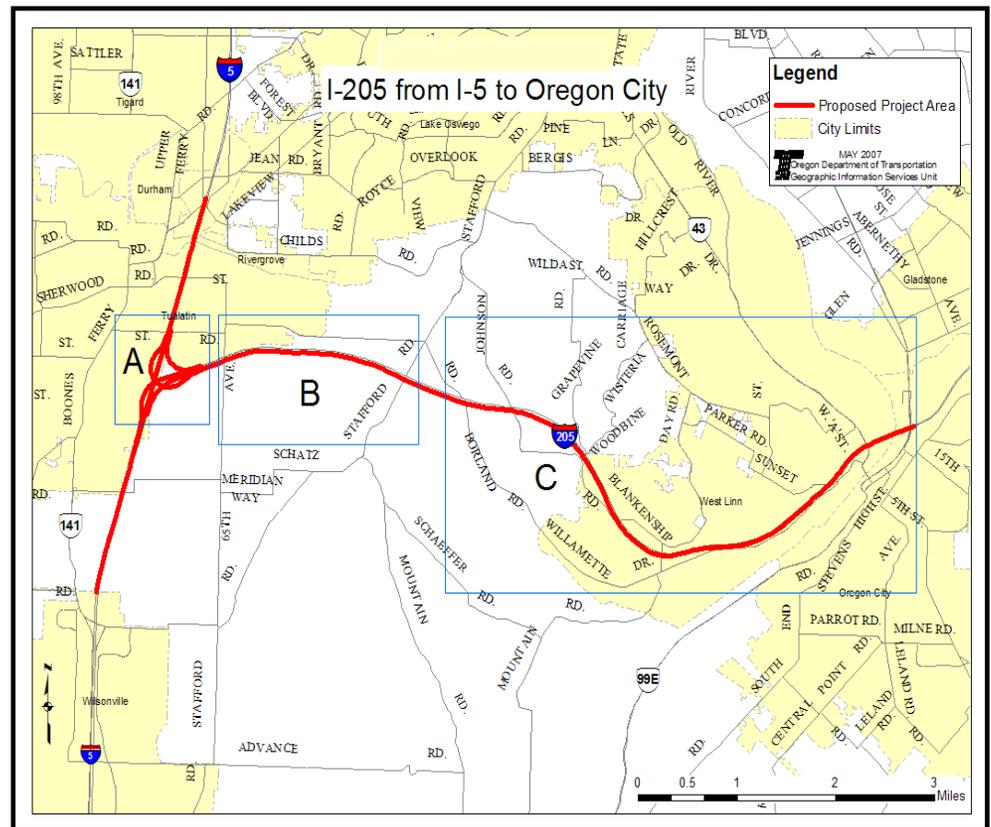


# Additional Use Possibilities

## Pricing On-Ramps

Managing traffic flow on limited access highways without additional physical infrastructure

Point charge or distance charge





# Future Concept Development

## Home Fueling Collections

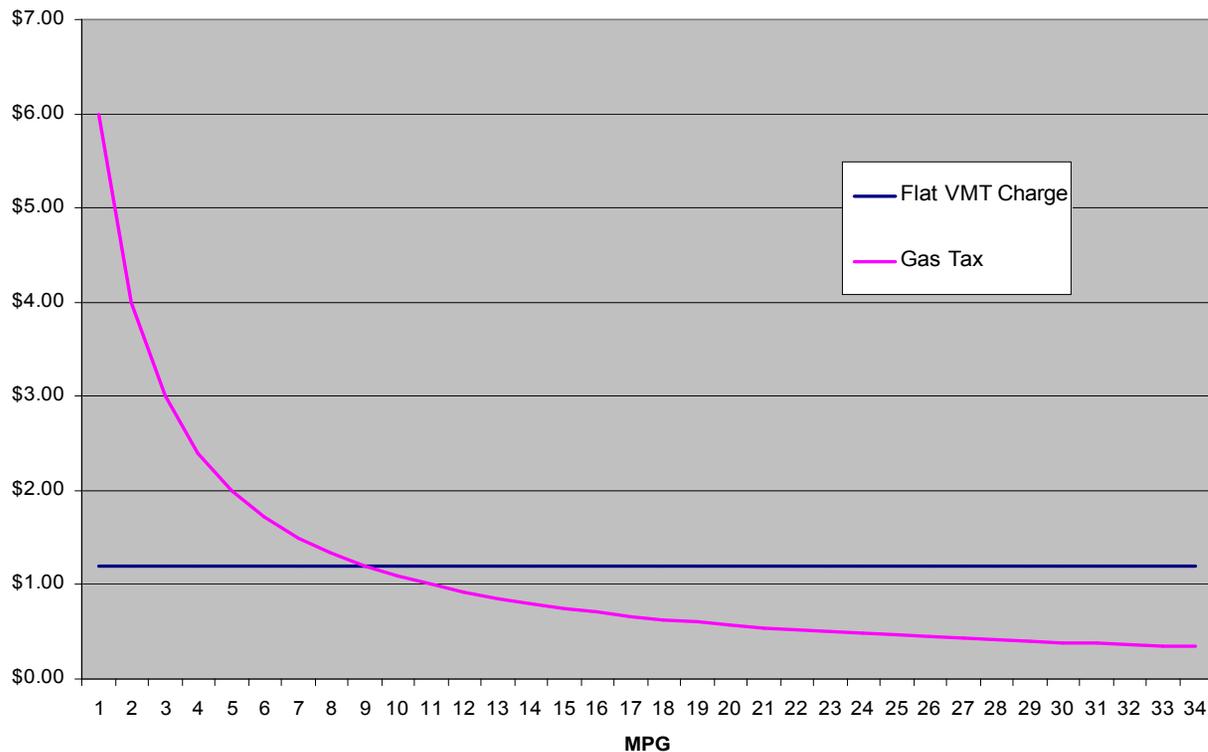




# Key Policy Issue – *The Rate Structure*

## Possibility # 1 – Flat Mileage Charge

FLAT VMT CHARGE VS. FUEL TAX

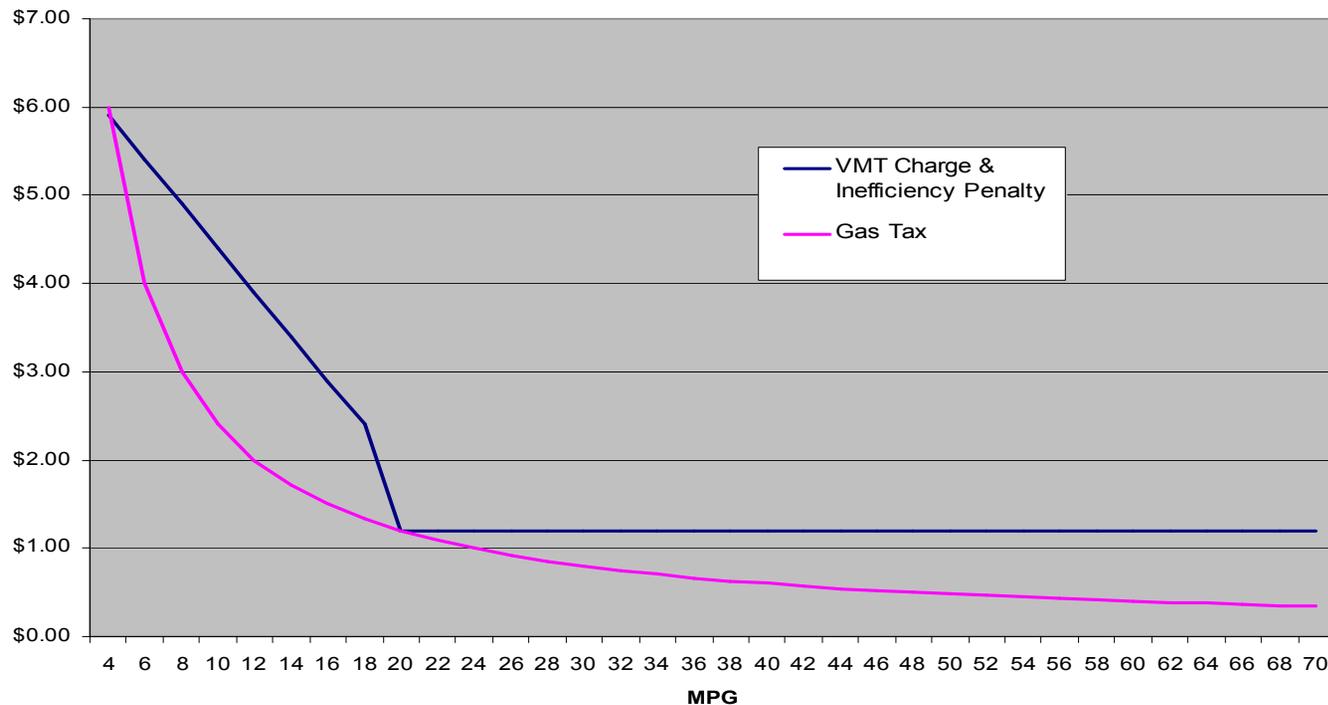




## Key Policy Issue – *The Rate Structure*

Possibility # 2 – Add Fuel Inefficiency Penalty to Mileage Charge

VMT CHARGE & INEFFICIENCY PENALTY VS. FUEL TAX

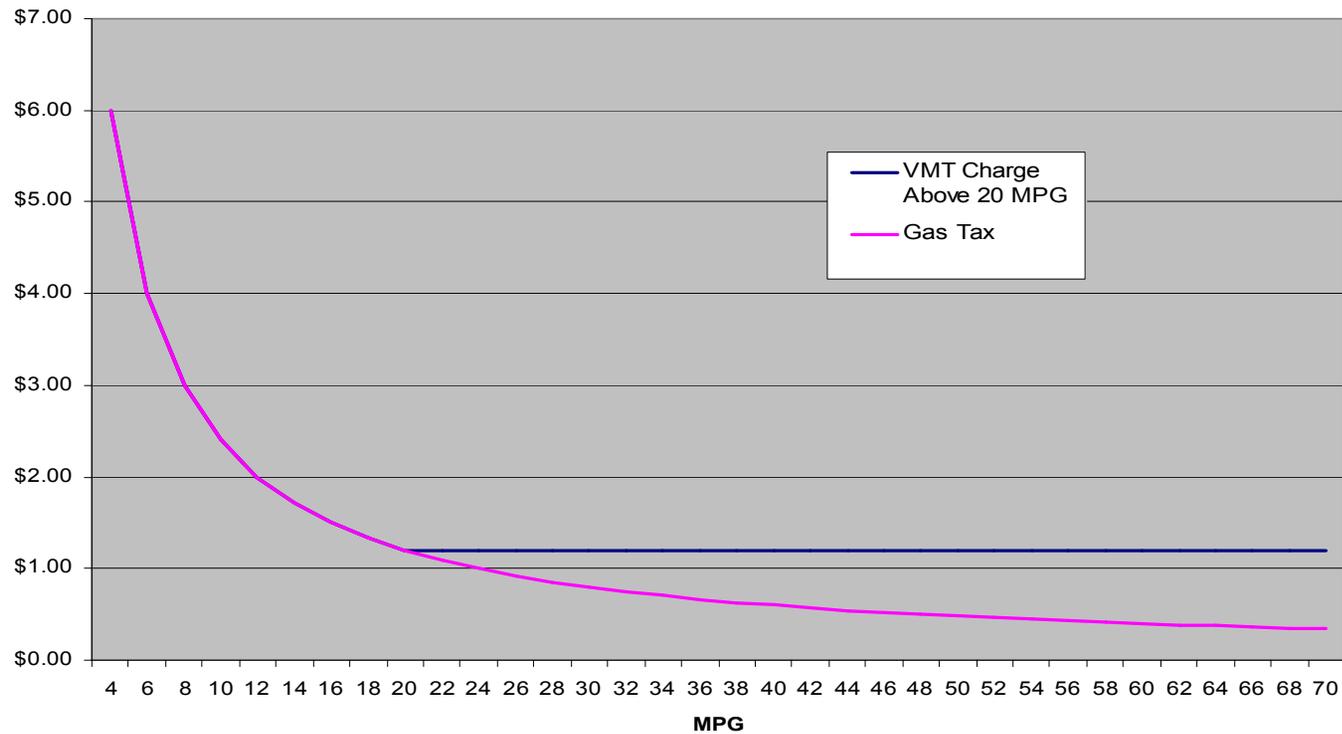




## Key Policy Issue – *The Rate Structure*

Possibility # 3: Fuel Efficient Vehicles *Pay* Mileage Charge  
Low Fuel Efficiency Vehicles *Pay* Gas Tax

VMT CHARGE Above 20 MPG VS. FUEL TAX

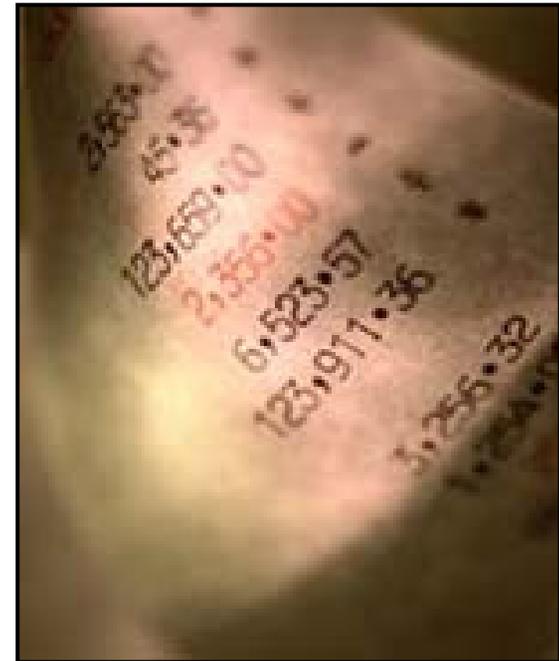




## Key Policy Issue – *The Rate Structure*

Mileage Charge Varied  
by Other Factors

- Emissions
- Vehicle weight
- Fuel/Propulsion system
- Geography





## Obtaining Public Acceptance/Consent

### Public attitude surveys

- Learn what the public knows about transportation funding
- Learn which incorrect attitudes and assumptions are correctable

### Communications

- Education - Public must understand the problem
- Education – Privacy protected

### Timing

- Impending gas tax loss may have to become *obvious*
- Acceptance of rate structure



## Road User Fee Pilot Program Website [www.oregon.gov/ODOT/HWY/OIPP/mileage.shtml](http://www.oregon.gov/ODOT/HWY/OIPP/mileage.shtml)

The screenshot shows a Microsoft Internet Explorer browser window displaying the Oregon Department of Transportation website. The address bar shows the URL <http://www.oregon.gov/ODOT/HWY/OIPP/rufft.shtml>. The website header includes the Oregon Department of Transportation logo and navigation links for Business, Education, Human Services, Public Safety, Recreation, and Transportation. The main content area is titled "Office of Innovative Partnerships and Alternative Funding" and "Road User Fee Task Force". A sidebar on the left contains a "menu" with links for "About Us", "Contact Us", "Innovative Partnerships", "Road User Fee Task Force", and "Road User Fee Pilot". The main content area features an "Overview" section with a photograph of a vintage car and text explaining the task force's mission. A right-hand sidebar contains links for "FAQ", "Meetings", "Reports", "Presentations", and "News Releases". The Windows taskbar at the bottom shows the Start button and several open applications, including "Inbox - Micros...", "RE: Gas Tax A...", "Presentations", "Microsoft Pow...", "Oregon Depart...", and "Office of Inno...". The system clock shows the time as 2:54 PM.

**OREGON** Business Education Human Services Public Safety Recreation Transportation

Office of Innovative Partnerships and Alternative Funding

Departments Divisions

**menu**

- About Us
- Contact Us
- Innovative Partnerships
- Road User Fee Task Force
- Road User Fee Pilot

**Road User Fee Task Force**

**Overview**

The Road User Fee Task Force was established through HB 3946, passed by the 2001 Oregon Legislative Assembly.

**Mission:** To develop a revenue collection design funded through user pay methods, acceptable and visible to the public, that ensures a flow of revenue sufficient to annually maintain, preserve and improve Oregon's state, county and city highway and road system.

*"As well as the gas tax has served the road needs of Oregonians in the past, it will soon become a declining revenue source. The Road User Fee Task Force is charged with the duty of designing a new revenue collection system for road funding to ultimately replace the gas tax. Oregon will be well served in finding a solution to this concern before it becomes an emergency."*

**FAQ**

[Answers to frequently asked questions](#)

**Meetings**

[RUFTF meetings by date](#)

**Reports**

[Reports](#)

**Presentations**

[Presentations](#)

**News Releases**

[News Releases from the Road User Fee Task Force](#)