



New Vision for a Mileage Metering Charge

Presented to
The Road User Fee Task Force

The State Capitol
Salem, Oregon
October 28, 2010

James Whitty, Manager
Office of Innovative Partnerships
and Alternative Funding





Public Concerns about Oregon Mileage Fee Concept

- Confidence in system
 - Efficiency
 - Fairness
 - Perceptions of large and costly bureaucracy
- Privacy & fear of technology
 - Government mandated GPS device
- Motorist class wars
 - Rate structure
 - Rate equity
 - Rural driving
- Flexibility of Road Pricing





“... the unfamiliar, the vaguely perceived, the mysterious, the hidden, the unexpected are all apt to be threatening. One way of rendering them familiar, predictable, manageable, controllable, i.e., unafrightening, and harmless, is to know them and to understand them.”

Abraham Maslow



Solutions to Public Concerns

1. Make the data collection and payment system known
2. Design the data collection and payment system to access existing processes familiar to the public



Observations Concerning Mobile Technologies Circa 2010

- Large numbers of motorists use all electronic toll technology
- Citizens around globe apprehensive about government mandates for GPS in passenger vehicles
 - The United States
 - The United Kingdom
 - The Netherlands
 - Singapore
- Citizens around globe use GPS in mobile phones purchased in marketplace
- Mobile phone/computer technologies evolves with consumer demand
- Market for smart devices in passenger vehicles slowly emerging





Further Observations

- Existing electronic odometer system of post-1995 passenger vehicles capable of being equipped with various wireless data transfer technologies
- Private sector currently managing complex consumer accounts
- Consumers accept private sector management of accounts for mobile phone/computer data



A New Implementation Vision for VMT Charges

- An open system technology platform with common standards that allows on board unit technology to evolve
- No government requirement for on-board unit with vehicle location technology
- Tap into market forces to provide data collection and payment services thereby allowing the public to choose
 1. Means by which they report mileage
 2. On-board technology to suit needs
 3. Method of invoicing and payment





What are *closed* and *open* systems?

- *A closed system* has characteristics similar to the mechanics of a motor vehicle
 - An internally integrated system controlled by a single entity with essential components that cannot be substituted by other external components that perform identical functions
- *An open system* has characteristics similar to the Internet
 - An integrated system based on common standards and an operating system accessible to the marketplace whereby components performing the same function can be readily substituted or provided by multiple providers



An Implementation Pathway for VMT Charges

Plank 1: A Simple Mandate

- **Motorists mandated to periodically provide mileage data to billing agency**
- **Motorists choose compliance method**
 - Undifferentiated mileage charged a single rate
 - Differentiated mileage charged various rates assigned to pre-defined geographic zones
 - Motorists reap benefits and bear burdens of chosen manner for data generation (and can choose to change between them)





An Implementation Pathway for VMT Charges

Plank 2: An Open Technology Platform

- **Government develops an open network and available operating system**
- **Government sets common standards for mileage data collection**
 - Accuracy and form of data
 - Transmission form & frequency for data
 - Vehicle identification and characteristics
 - Anti-tampering and enforcement protocols
- **Government sets common standards for mileage charge invoicing and payment**
- **Government establishes certification processes**
 - Data provision methods
 - Installations of on-vehicle technology
 - Methods of invoicing and payment





An Implementation Pathway for VMT Charges

Plank 3: Data collection under open system

- **Government requires**
 - Equipping existing electronic odometers with wireless data transfer capability
 - *No mandate for GPS* or other on-board vehicle locator capability
- **Market provides on-board data collection options**
 - Meets government standards and certification requirements
 - Motorist chooses an on-board technology meeting personal needs
 - Privacy
 - Differentiation of mileage data
 - Computing capacity
 - Precision
 - Unit cost
 - Optional applications and services
 - Private sector assumes trusted third party status
- **Government audits and enforces**



An Implementation Pathway for VMT Charges

Plank 4: Invoicing and payment under open system

- **Government role**
 - Provides basic invoicing and payment system
 - Provider of last resort for some accounts
 - Approves alternative invoicing and payment protocols for private sector options under an open system
 - Audits and enforces
- **Private sector provides alternative invoicing and payment options and management of accounts**
- **Motorists reap benefits and bear burdens of chosen manner of invoicing and payment**
 - Convenience
 - Administrative cost





Assessing Mileage Fees Under Open Platform

Pluses

- Charges only in-state travel
- Provides gas tax credit
- Cost effective
- Protects motorist privacy
- Enforceable
- Reliable
- Seamless transition
- Burdens private sector minimally
- Allows technological evolution
- Covers *all* vehicles
- Risk sharing with private sector
- Allows for motorist choice
 - On-vehicle device
 - Third party provider
 - Manner of invoicing
 - Manner of payment

Unknowns

- Public acceptance



A Transition Plan

1. Government sets technology standards under an open platform to ensure interoperability and technological and system evolution
2. Phased Fleet Implementation
 - Phase 1: Small scale start
 - Phase 2: All new vehicles
 - Phase 3: Retrofit the tail



The Opportunity



- Strong policy case for application of mileage based user fees now to plug-in hybrids and electric vehicles
- Enactment of a small, partial program to electric vehicles will
 - Enable development of the mileage fee collection system in a small risk environment
 - Enable collection system to grow as electric vehicle market grows
 - Allow the motoring public to view an actual mileage use fee collection system in operation
 - Potentially provide the legislature with confidence to add vehicle groupings as comfort with mileage fee system grows



Basic Policy Questions for RUFTF

1. Shall task force proceed with development of legislation for application of a metered road use charge?
2. Shall the metered road use charge be designed as a tax or a fee?
3. Shall the road use tax/fee be imposed on all vehicles or a smaller group of vehicles?
4. Shall the first application of the road use tax/fee be imposed on plug-in hybrids and electric vehicles?
5. Shall ODOT have the opportunity to offer voluntary participation in a road use fee/tax in substitution for payment of the gas tax?
6. Is the approach of authorizing ODOT to develop the metered road use tax/fee according to certain directives a satisfactory approach to development of legislation or does RUFTF want to design the system from scratch or recommend the legislature do so?



Are there any policy directives from RUFTF to staff in preparation for next meeting on November 4, 2010?