Dynamic Wireless Charging Financial System

EV Roadmap 7
Portland, Oregon
July 24–25, 2014
Charging at Home: Home Owner Pays the Local Utility

Most utilities have a service district. Point of use determines supplier.
Who Pays Whom?

Do drivers pay ODOT? Does ODOT pay PGE?

Welcome to Oregon
The Connected Vehicle

Road trip! Crossing utility districts

Clark County PUD
PPL
PGE
ODOT Road Usage Charge (RUC) System
AKA Vehicle Miles Traveled (VMT) Fee

Two previous pilots. Third pilot: 5,000 vehicles in Oregon

Western Road-Usage Charge Consortium

Data Port (OBDII)
- vehicle ID
- total miles (odometer)
- date/time
- fuel use

trusted service provider

Back office (account management, e.g.):
- bank
- Visa
- PayPal
- Verizon
- etc.

Mileage tax statement
Western Road-Usage Charge Consortium

From “Washington State Road Usage Charge Assessment, Transportation Commission Briefing,” 6/17/14; (Note: MT & ID have subsequently joined WRUCC)
RUC/VMT Systems are Platform Systems

Key concepts: [a] legal, secure measurement on vehicle; [b] trusted service provider

Apps:
- dealer maintenance
- hot lane
- toll
- stolen vehicle recovery
- insurance
- congestion
- DEQ
- parking
- etc.

Flexible platform for interaction with infrastructure

Data Port (OBDII):
- vehicle ID
- total miles (odometer)
- date/time
- fuel use
- wireless power charge
- utility zone

Mileage tax statement

Back office (account management, e.g.):
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- PayPal
- Verizon
- etc.