Session 1: Implementation Pathways: Research Initiatives and Demonstrations

Speaker 3: Chuck Larson, Oregon DOT (ODOT)
"Road Usage Charging Pilot Program"

Chuck Larsen is an Information Systems Program Coordinator who for 14 years led ITS software development for the Oregon Department of Transportation.

Oregon has been a leader in MBUF research since 2001 when the state legislature established the Road User Fee Task Force, which ultimately recommended that the state work to develop the MBUF concept.

In 2006, ODOT conducted a successful pilot of a pay-at-the-pump mileage fee system, demonstrating that mileage fees can be incorporated into the existing fuel tax system. However, when ODOT officials tried to move the concept further towards implementation, there was significant resistance, as there were several outstanding policy issues that had yet to be addressed – primarily equity, efficiency and privacy. There were additional questions about pricing structure – whether there would be flat rates or perhaps congestion pricing.

For its latest pilot, ODOT developed a new vision for deployment, based on what was learned in the initial pilot:

- technology use by drivers should be voluntary;
- the state should not regulate the type of device(s) used; and
- technology-free options should be offered to enhance public acceptance.

ODOT incorporated significant private sector involvement in order to address concerns about government involvement and administrative costs. These entities are already collecting data and money from drivers. By leveraging private sector data collection and transmission systems, ODOT believes it is possible to contain administrative costs to within 5 percent of revenues.

Open architecture was used for the technology components so that, if fully deployed, the system could evolve over time. ODOT has developed a concept of operations, system architecture diagrams, system requirements, interface control documents, and test plans for the pilot.

The policy tenets supporting the most recent pilot are as follows:

- Focus on public acceptance.
- Make the system easy to use.
- Keep cost down.
- Protect motorist information.

- Do not require use of GPS technologies.
- Fee should replace, not supplement, the fuel tax.
- Do not charge for out-of-state miles if technology is utilized by the driver for assessment.

ODOT had discussions with the legislature and ACLU to come up with language related to how long to keep driver data, underscoring the importance of addressing privacy.

Drivers from Washington and Nevada participated in the pilot but were subject to different rates than the Oregon participants. While all participants received invoices, only Oregon had legislation that allowed for collecting fees from its state's participants.

Participants were able to choose a provider and level of technology from options that included private and public entities with commercially available system components. Several vendors responded to the request for proposals (RFP) and ODOT selected two vendors with technology platforms that could meet the requirements of the RFP.

Participants selected a mileage plan by visiting a website, choosing among four platforms with varying levels of technology and one technology-free option. Sanef was the provider for two of the technology-based plans. Sanef's basic plan used an on-board unit (OBU) that simply counted the miles traveled, while its advanced plan utilized a GPS-equipped OBU that would determine when mileage occurred out of state or on a private roadway; in either case, these miles were not assessed a fee. Another private vendor, Raytheon, provided a smartphone-based plan, which was also known as a "switchable" plan in that the device could be switched to detect and not charge for out-of-state miles.

As an alternative to the private vendors, participants could choose ODOT as their provider, utilizing a basic non-GPS OBU that logged only total miles. The final option was a plan that did not count miles or use any technology, instead levying a higher, flat monthly rate. Only one participant chose that option.

After picking a plan, the participant installed the device in the car and began accruing mileage over a four month collection period. Under the ODOT plan participants were mailed a monthly paper bill that could only be paid by check. Sanef invoiced via e-mail and provided electronic payment options. Participants generally felt that the system was accurate and easy to use.

Since the conclusion of the second Oregon pilot, conversations at the legislature have changed from whether or not mileage fees can be implemented to when and how they should be implemented. There is now bipartisan support in the Oregon legislature for the concept since ODOT was able to demonstrate that the system could be implemented with a positive response.

ODOT has carried out policy work over the past year, which includes a vehicle fleet forecast in order to project how many vehicles with 55mpg and greater fuel efficiency (mostly electric cars and hybrids) will be on Oregon roadways in the future. ODOT has also done some revenue forecasting and work developing an organizational structure within the agency to support MBUF. Finally, ODOT has examined rural and urban issues associated with MBUF.

ODOT staff are currently working to achieve passage of two MBUF-related bills in the state legislature. The first, a House bill, would apply an MBUF starting in 2015 to vehicles with a fuel efficiency of 55 mpg or more. The other is a Senate bill that would establish a 5,000-person opt-in MBUF implementation program that would run indefinitely. While it is difficult to predict how these bills will fare, they do have good bipartisan support.

ODOT is currently updating the various aspects of the pilot to prepare a step-by-step implementation plan should the legislation pass. These activities include updating all technical documentation and test plans. ODOT is also working with Washington and Nevada to establish a Western Road Usage Consortium that would fund and coordinate more pilots, work on multi-state issues, and continue policy work. ODOT is also working with Oregon State University on in-vehicle telematics-based devices, an iPhone app, and other technology components.

The ODOT website on the second pilot program is
http://www.oregon.gov/ODOT/HWY/RUFPP/pages/rucpp.aspx.