



Measuring Miles Beyond State Borders

How will a Road Usage Charge (RUC) be applied to interstate travel?

One of the most common questions and potential barriers is, "How will a RUC system measure and account for miles driven outside my home state?" To help address this question, RUC West is leading a regional pilot project to test systems between Oregon and California.

In the pilot, drivers traveling across multiple states will be charged for travel in those states by one vendor handling their accounts. Under this conceptual design, the driver would pay once and the collecting state and its vendor would allocate funds to the respective states where other miles were driven. This approach creates a driver-oriented, seamless RUC system. Other industries, such as tolling, have been hard at work to make their systems interoperable across states and the nation (*read more inside*).



How does RUC handle when you cross state lines?

Drivers in Oregon and California will get a chance to find out by participating in RUC West's Regional RUC Pilot Program, designed to provide the flexibility needed to accommodate each state's unique operational environment while giving drivers a driver-focused, seamless approach to road charging.

How would a RUC system work?

A Road Usage Charge (RUC) funds transportation based on a user-pays system, charging drivers by the mile instead of by the gallon. Ultimately, if legislators adopt a RUC, it could replace the state gas tax. The RUC West Regional Pilot is studying how one state's RUC system can accommodate other states' requirements, processes, systems, rates, and laws.

In the pilot, third party vendors will collect the miles driven and manage the data and payments. The vendor will offer pilot participants several choices for reporting their miles, including a mileage reporting device with GPS, mileage reporting device without GPS, or smartphone app. Once a month, the pilot participants will receive an invoice indicating miles driven (in their home state and between California and Oregon) and the fee charged. All RUC funds collected (beyond operating fees) are deposited to the state's transportation fund in the same way gas tax revenue is collected today.



Visit rucwest.org for answers to frequently asked questions

How would RUC be applied to interstate travel?

As stated on the cover, tolling industry professionals are working to make their systems interoperable across states and the nation so that one toll tag will work regardless of where you drive. This is called interoperability. Similarly, RUC West is testing a regional mileage-based transportation taxation system that embraces the concept of interoperability, while being cognizant of RUC-specific issues and challenges from state-to-state. A regional RUC program must be:

- **DRIVER-ORIENTED:** Interoperability should be viewed from the perspective of the driver. This means providing them with a seamless experience where they are unaware of differences in RUC system components from state to state. Drivers should not have to use or set up different devices, RUC accounts, reporting systems, or billing systems when travelling across state lines.
- **TRANSPARENT:** Drivers should clearly understand what is being assessed and what they are paying, not only within their home state but also for other states where they may drive. States should similarly be able to easily verify, with confidence, that they receive road charge funding that is due to them for travel within their state.
- **CONSISTENT:** An interoperable system should be consistent in terms of messaging and communications (including outreach and education) with states, vendors, and drivers. This means achieving consensus among states on the definition and function of various system elements such as business partners, vendor certification processes, governance entities, etc.



Interoperability in other markets

The Institute of Electrical and Electronics Engineers (IEEE) defines interoperability as the “ability of a system or a product to work with other systems or products without special effort on the part of the customer. Interoperability is made possible by the implementation of standards.”¹ Drivers should “see the same things” from state to state.

Drivers should have the same experience when traveling from state to state.

1. Standards Glossary. The Institute of Electrical and Electronics Engineers (IEEE). September 23, 2016.

CASE STUDIES

Western states consider interoperability

California road charge pilot program



In its 2016 pilot, Caltrans tested RUC interoperability with Oregon's OReGO program. Only participants using GPS-enabled mileage reporting devices were eligible to participate. The private account manager collected the miles at each state's per-mile road charge rate, with a credit for gas tax paid at each state's per-gallon rate. No money was exchanged, but the account manager issued an invoice to each participant and collected mock payments for the total amount owed at the end of the month. The account manager reported the Oregon miles as "out-of-state chargeable miles," and distributed simulated funds to Oregon versus California.

According to its 2017 Final Report, Caltrans reported, "Results from the pilot interoperability test reveal that interstate operation of a road charge supported by private account managers is feasible."

Washington state RUC pilot project



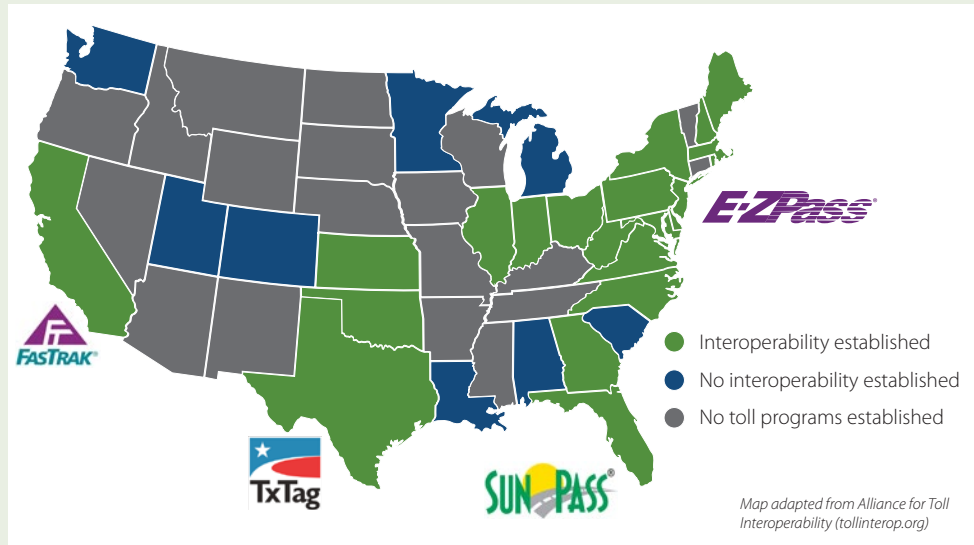
The Washington State Transportation Commission (WSTC) is leading the state's RUC pilot project, which includes testing a RUC hub for interoperability. WSTC describes their pilot as establishing an integrated, centralized RUC revenue reconciliation center to enable efficient revenue collection from cross-border and interstate travel, while accommodating the needs and unique characteristics of each state and simplifying the reconciliation of funds and mileage related to drivers crossing jurisdictional boundaries.

Its pilot will test this reconciliation of mileage reporting between Washington, Oregon, Idaho, and Canada. Additionally, financial reconciliation utilizing actual cash transactions will be tested with the State of Oregon.

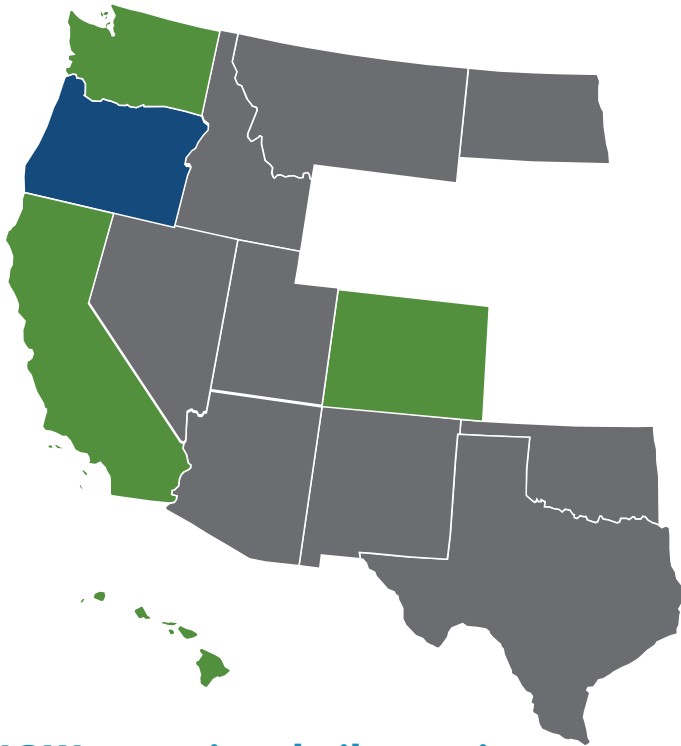
Toll industry moving towards interoperability

Electronic toll collection (ETC) is the main form of toll collection in the U.S. as it is quicker and less expensive relative to having cash toll booths. This is similar to how RUC is envisioned for the long term. However, many tolling systems in the U.S. are not interoperable. Cities and regions often use proprietary technology protocols, meaning that a toll tag or sticker used in one area might not work in another area. Someone travelling from California, for example, would not be able to use the same ETC tag on a Texas toll road and would thus have to find a different way to pay their tolls in that state.

There are regions of the U.S. that have achieved a level of interoperability. Nevertheless, there is still no one ubiquitous technology standard that would allow for one tag to be used on all U.S. toll facilities.



One of the main objectives of RUC West and the Regional Pilot is to ensure that RUC systems develop in the U.S. such that drivers can select one reporting and account management option and travel throughout the U.S. without the need for different technologies or paying separate bills. The RUC West Regional Pilot will serve as an initial step in this process by testing interoperability between the states of Oregon, California, and other participating states.



RUC West

RUC West brings together leaders from state transportation organizations to share best practices and research RUC. RUC West is the foremost authority on road usage charging in the United States, bringing together leaders from 14 state transportation organizations to share resources and explore innovative funding solutions for preserving the future of our transportation network. RUC West member states are organized into three tiers based on their current level of involvement in advancing RUC in their jurisdiction:

Tier 1

States with Policy Enacted to Implement RUC Programs

- Oregon

Tier 2

States Testing RUC Pilot Programs

- California
- Colorado
- Washington
- Hawaii

Tier 3

States Researching RUC

- Arizona
- Idaho
- Montana
- Nevada
- New Mexico
- North Dakota
- Oklahoma
- Texas
- Utah

RUC West regional pilot project

RUC West will begin a regional pilot project between member states Oregon and California, creating a system that other states may join throughout the process. The pilot is expected to go live with volunteer drivers in 2019.

California's road charge program launched July 1, 2016, and concluded March 31, 2017. Oregon's program (OReGO) launched July 1, 2015, and continues to operate. Testing interoperability of these two inaugural systems is the next step in developing RUC as a viable transportation funding alternative across the country.

The goal of the regional pilot project is to test whether the system can accommodate other states' requirements, processes, systems, rates, and laws. RUC could expand to include more states if the pilot is successful and others choose to join.

RUC pilot projects

