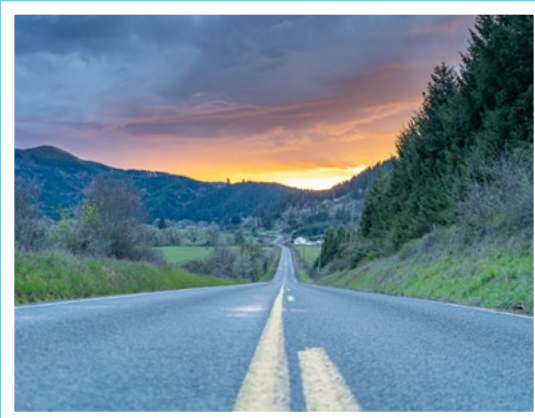
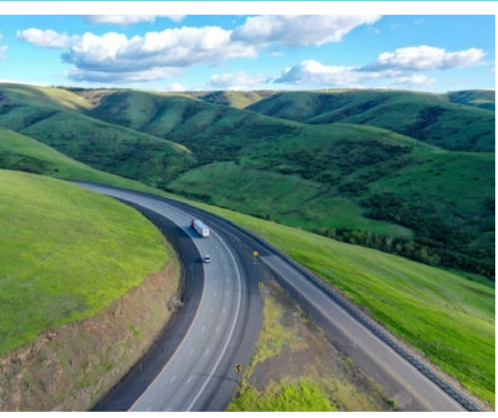


ROAD USER FEE TASK FORCE Report to the Oregon Legislative Assembly

2021



Road User Fee Task Force

2021

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INTRODUCTION

This report is submitted to the Legislative Assembly in compliance with ORS 184.843 [9]. The statute requires the Road User Fee Task Force (RUFTF) to report to the Legislative Assembly in odd-numbered years on the work of the task force, the department and the Oregon Transportation Commission in designing, implementing and evaluating pilot programs.

When RUFTF was created in 2001, the State recognized that fuel taxes were not a sustainable funding source for transportation system maintenance, improvements and construction. This is due in part to more fuel-efficient vehicles consuming less fuel, and thus paying less in fuels taxes, which support the maintaining and building of roads and highways. As highly efficient hybrid vehicles and electric vehicles become more prevalent, this funding imbalance will be exacerbated.

Following two road usage charge (RUC) pilots in 2006 and 2012, Senate Bill 810 was passed during the 2013 legislative session, establishing the first road usage charge program in the nation, now known as “OReGO.”

SB 810 also encouraged the Oregon Department of Transportation (ODOT) to partner with other departments of transportation to conduct research and further develop the program. Accordingly, ODOT started the Western Road Usage Charge Consortium, now known as RUC West, to lead a collaborative approach to developing road usage charge policy. RUC West consists of 17 western states in various stages of exploring road usage charge programs. This includes Utah, which is operating a road usage charge system that allows its citizens to enroll and pay a RUC rather than paying an enhanced registration fee if the vehicle uses alternative fuels, such as electricity. Membership also includes California and Washington – both of which have completed pilots. Washington’s pilot included Oregon volunteers.

Subsequent legislative action in 2017 and 2019 expanded and refined the OReGO Program.

HB 2017 (2017) exempted program participants with electric vehicles from paying enhanced registration fees enacted by HB 2017, creating an incentive to join the program.

HB 2881 (2019) helped lay the groundwork for a future mandatory program by:

- » Indexing the RUC rate to the fuel tax rate;
- » Eliminating eligibility for vehicles that are rated at 20 mpg or less;
- » Exempting vehicles with a rating of at least 40 mpg from paying enhanced registration surcharge fees; and
- » Converting refunds of excess fuel taxes to non-refundable credits against future RUC charges.

Current program

The following points describe the OReGO program as it stands today:

- » Participants sign up with an account manager, select a mileage reporting option, and are billed for reported miles.
- » Participant privacy is protected from the state in a number of ways:
 - ~ Private sector account managers are responsible for collecting the data and processing the individual transactions.
 - ~ Private sector account managers are required by statute to destroy personally identifiable data within 30 days of account settlement.
 - ~ Law enforcement must obtain a warrant to get the data.

~ ODOT receives aggregated and anonymized data only, which supports the tax filings from the account managers.

- » Participants may choose a GPS-based option, in which case they are automatically not billed for out of state miles; or, they can choose a non-GPS-based option, in which case all miles driven are presumably driven in Oregon.
- » OReGO participants currently pay 1.8¹ cents for each mile they drive on public Oregon roads (including city, county).
- » Participants get non-refundable credit for fuels tax paid.
- » Money goes into the State Highway Fund for construction, maintenance, and preservation of roads and bridges.
- » Drivers of vehicles with a 40+ mpg rating have the opportunity to lower their registration rates if they join OReGO.
- » Operational since July 1, 2015, the program has a proven track record of responding to statutory changes. That does not mean, however, that the program is ready to support a mandate should one be enacted.

DEMONSTRATION EFFORTS TO REFINE AND ENHANCE THE EXISTING PROGRAM

As RUFTF continues to work on program design that would support a future mandate, ODOT continues to refine and enhance the program through demonstration projects that inform RUFTF on possible design options. This year, we:

- » Tested new options for mileage reporting, such as manual and telematics.
- » Evaluated compliance.
- » Examined agency partnering opportunities with DEQ and ODOT traffic modelers.
- » Worked with Washington State on its interoperability pilot.

FUTURE DEMONSTRATION EFFORTS INCLUDE:

- » Conducting a local area pricing pilot (started in March, 2021).
- » Engaging automobile manufacturers on the RUC use case.
- » Working with auto dealerships to streamline the enrollment process at point of sale.
- » Evaluating the impact of fuel efficiency changes in the medium duty fleet on revenues.
- » Implementing a manual reporting option.
- » Evaluating blockchain as a ledger to facilitate interoperability.
- » Evaluating equity including both tax equity and social equity including impact on rural and urban populations.
- » Evaluating payment options for cash-preferred payers.

¹ The RUC rate is indexed to fuels tax so as fuels tax increases occur, the RUC rate is adjusted automatically. Currently fuels tax is at 36 cents/gallon.

PROCEEDINGS

The Road User Fee Task Force held seven meetings since its last report to the Legislative Assembly in 2019.

In 2019, the task force met in April and November. At the April meeting the group received updates on OReGO, Oregon's Road Usage Charge Program and an overview of the Hawaii pilot. As an intersecting topic, TriMet presented information about its app-based payment platform. At the November meeting, OReGO program updates were provided as well as information about truck electrification and its potential economic impact. There was also a discussion about emerging technologies, such as connected and automated vehicles, and their potential impacts on safety, funding, and equity.

During 2020, RUFTF members met five times. In February, the task force received updates on the OReGO Program, were briefed on national momentum for road usage charge programs, and what ODOT was doing to prepare for more connected vehicles. This included a briefing on the development of a connected vehicle ecosystem. There was a policy discussion about allowing vehicles with fuel efficiency of at least 30 mpg to opt in to OReGO instead of paying enhanced registration fees. The task force also received a briefing on the work being done by the I-95 Corridor Coalition.

At the June 2020 meeting, the task force received the routine update on the OReGO program and RUC West activities, plus an overview of market development opportunities. There was a discussion of how to approach a medium-duty vehicle study to determine the impact of electrification of these vehicles on revenues. The group defined medium-duty vehicles as those between 10,000 and 26,000 pounds. These often operate commercially, with Amazon delivery vans being one example. Metro presented an overview of its congestion pricing study.

In September 2020, the task force received an update on OReGO and started discussions to create road usage charge legislation for the 2021 legislative session. ODOT staff presented options for provisions/concepts to be included in the legislation.

The language of a legislative proposal was finalized during two meetings in November 2020. The Task Force voted to introduce a bill with the following provisions:

- » All passenger vehicles, beginning with model year 2027, with a combined rating of over 30 mpg, will be required to enter the road usage charge program. ODOT will start implementing in mid-2026.
- » For the first three years of the mandatory program, drivers can choose to opt out for \$400.
- » Enhanced registration and title fee rates will not apply to those enrolled in the mandatory road usage charge program.

The bill also includes reporting requirements for ODOT:

- » Implementation report due every two years.
- » Equity report due in 2022 to examine how the transition from a fuel tax system to a per-mile road usage charge program affects individuals categorized by income, race, and socioeconomic status.
- » Climate report due in 2024 to address how the program can be structured to help meet the State's electric vehicle adoption goals.
- » Medium-duty report due in 2026 to examine how to include these vehicles in a road usage charge program.

This bill was introduced as HB 2342 in the 2021 Legislative Session and is sponsored by Representative Lively. Following a hearing and work session, it was passed out of the Joint Transportation Committee on May 25, 2021 with an amendment and a subsequent referral to Ways and Means.

More information about the Road User Fee Task Force deliberations from the last two years can be found on the website.²

² <https://www.oregon.gov/odot/programs/pages/road-user-fee-task-force.aspx>



PROGRAM UPDATES

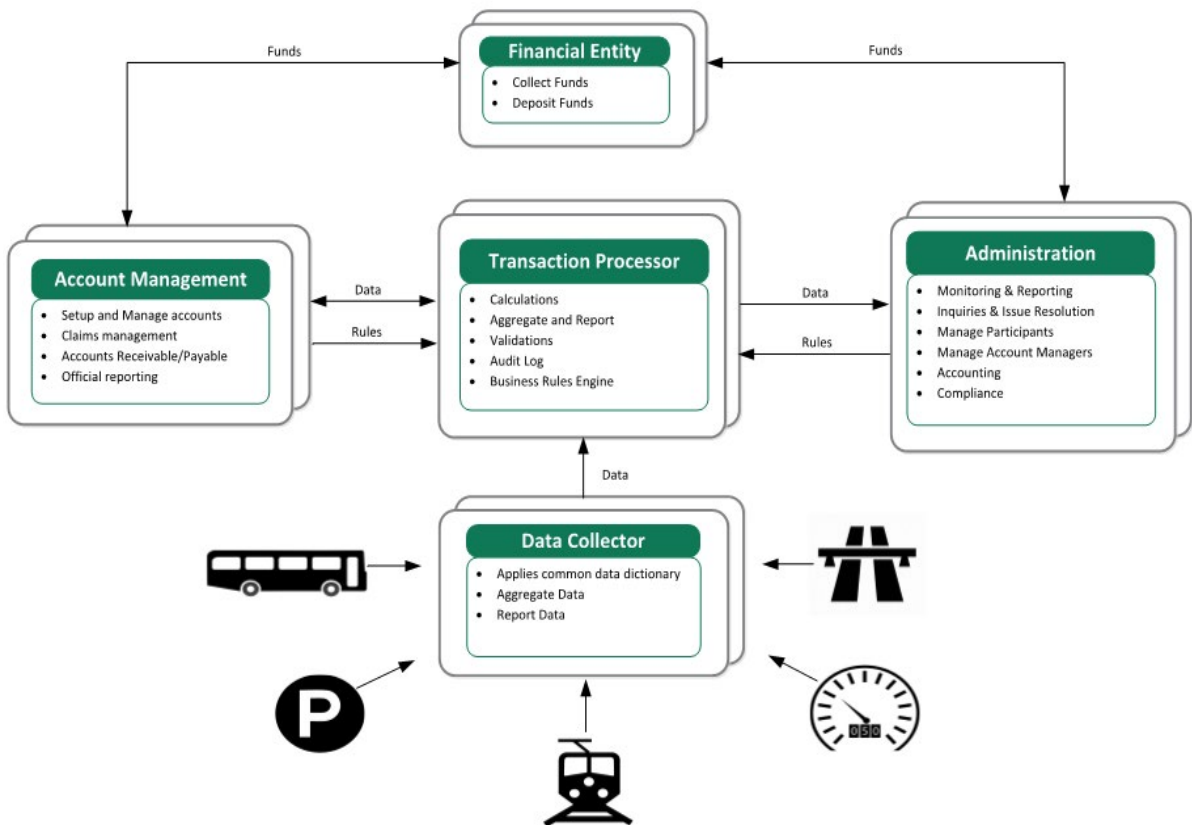
OReGO, Oregon’s Road Usage Charge Program successfully launched on July 1, 2015. It has operated continually since, as ODOT conducted projects to enhance it. The program has also delivered ongoing public education to help Oregonians understand and embrace the concept. This outreach is instrumental to OReGO’s success.

In 2019, we updated the OReGO website after gauging public opinion through surveys, in-person focus groups, and a six-month long virtual focus group with Oregonians across the state. We learned what messages and information resonated with people

when it comes to Oregon roads, including how they use them and how they pay for them. The resulting education campaign was recognized by the Transportation Research Board³ at its annual meeting in 2020; our “Keep Oregon Connected” feature video was given top honor for excellence in public communications.

The OReGO Program continues to refine and share its open architecture framework, which was mandated by the enabling legislation. The diagram below is a depiction of that framework.

Open Architecture for Transportation Services



³ Transportation Research Board is a National Academies of Sciences, Engineering, and Medicine. Its mission is to “increase the benefits that transportation contributes to society by providing leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal.”

One of the tools used to evaluate public acceptance is exit surveys. These are sent to all volunteers who leave the program. Results are shared with the OReGO account

managers to aid them in improving their services. Results are shown in the table below:

OREGO EXIT SURVEY RESPONSES

Answer Options	Excellent	Very Good	Good	Fair	Poor	No Opinion or N/A	Response Count
Ease of initial application	122	69	18	10	8	8	235
Ease of online account setup	103	65	38	8	10	9	233
Ease of checking account balance	94	52	31	11	17	28	233
Quality of service you received with the Account Manager	72	42	26	20	31	44	235
Account Manager's knowledge about OReGO	65	30	22	12	21	82	232
Account Manager's response time to inquiries and requests	57	45	18	17	28	67	232
Accuracy of reported mileage	91	43	32	9	13	45	233
Accuracy of reported fuel usage	73	39	38	10	24	50	234

Answered question **235**

Skipped question **0**

ODOT has applied for and received grants from the Federal Highway Administration as part of the Fixing America's Surface Transportation Act (FAST Act), under the Surface Transportation System Funding Alternatives (STSFA) Program. RUC West also applied for and received grants.

The FAST Act established the Surface Transportation System Funding Alternatives Program to provide grants to states (or groups of states) that demonstrate alternative, user-based revenue mechanisms that employ a user fee structure. The objectives of the STSFA program are to maintain the long-term solvency of the Highway Trust Fund in the following ways:

- » Test the design, acceptance, and implementation of two or more future user-based alternative mechanisms.
- » Improve the functionality of existing user-based alternative revenue mechanisms.
- » Conduct outreach to increase public awareness of the need for alternative funding sources for surface transportation programs; and, provide education on possible approaches.
- » Provide recommendations regarding adoption and implementation of user-based alternative revenue mechanisms.
- » Minimize the administrative cost of any potential user-based alternative revenue mechanism.

For the 2016 grant, Oregon had four objectives: expand the market, increase public awareness, evaluate compliance mechanisms, and explore interoperability. Eight projects were defined to meet the objectives.

1. Expand the market.
 - » Expand technology options for reporting mileage.
 - » Manage the open market [facilitate successful account manager and technology entrance and exit into the RUC market].
 - » Develop requirements for a manual reporting option.
 - » Streamline reporting and data sharing with other government entities.
2. Increase public awareness.
3. Evaluate program compliance mechanisms among account managers and RUC payers.
4. Explore interoperability.

The projects were successfully completed between September 2016 and July 2019. The overall budget for the OReGO Program FAST Act grant projects was \$4.2 million. The budget is 50% funded by federal grant funds, and 50% by the OReGO Program operating budget.

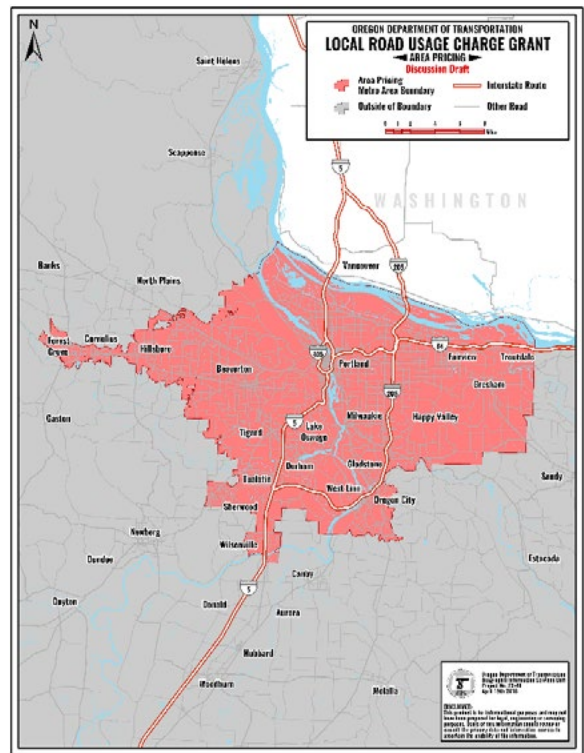
A firm was contracted to perform independent quality assurance for the project. The Oregon Office of the State Chief Information Officer [OSCIO] was engaged to provide project management oversight for the two sub-projects that directly involve technology.

For the 2017 grant, OReGO wanted to demonstrate the feasibility of using RUC technology for local area pricing. This was based on the premise that when RUC becomes a mandatory program, local jurisdictions might want to have the ability to enact a local option RUC program. This is similar to what currently occurs under fuels tax revenue programs.

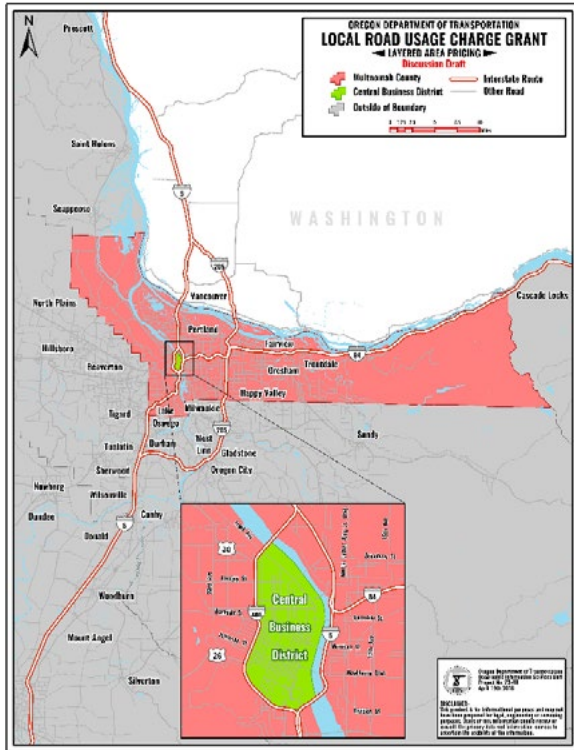
The work on this grant began in 2018 when ODOT worked with Metro, the Portland Bureau of Transportation and others to develop the geo-fenced area in which to charge additional fees. This pilot will evaluate the efficacy of the geo-fences and whether the appropriate fees can be applied during specified times.

In 2020, OReGO contracted with Azuga to create the geofences and manage the pilot. OReGO also engaged the services of PRR to recruit a minimum of 75 drivers for each pilot with the goal of having drivers reflect the demographics in the Portland metro region. Driving for the three pilots began in March, 2021. During the six months of driving, the participants will be asked to participate in a number of activities to gauge their acceptance of road charges and whether it changed their driving behaviors.

The maps are shown below.



In this sub-pilot, a fee will be charged for all miles driven within the Portland metro region boundary, regardless of time of day.



In this sub-pilot, there are two layers with different rates and times during which the rates apply, which increases the complexity.



The additional rate in this sub-pilot applies to the corridors in the Portland area, and is designed to encourage through-put on those corridors by charging drivers who drive on the shaded corridors for less than five miles an additional rate per mile.

For the 2019 grant, OReGO had one objective: to demonstrate the feasibility of a connected vehicle ecosystem (CVE) that would support the collection of data directly from vehicles. This will be important in lowering administrative costs by obtaining data from vehicles directly using embedded telematics as the collection mechanism. Privacy protections that currently exist will remain in place with the development of a CVE.

ODOT anticipates that the CVE will also enable greater safety and mobility by enhancing its intelligent transportation systems (ITS). ODOT's ITS Section invests in technology to safely and effectively move people and goods through and around Oregon. One of its most familiar services is TripCheck, ODOT's traveler information website.⁴

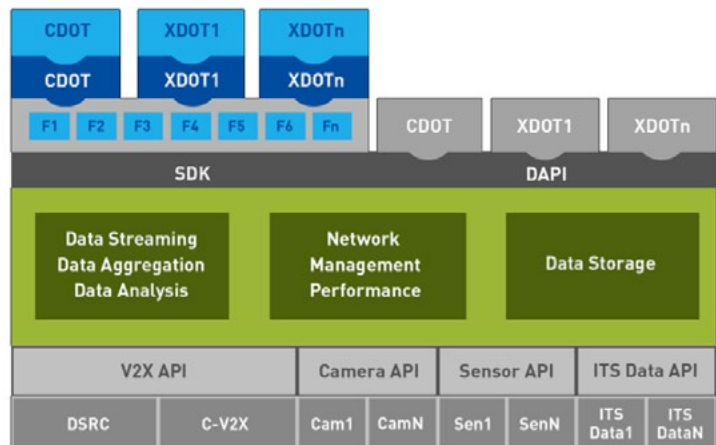
An illustration of what a connected vehicle ecosystem might look like is shown below.

Open Ecosystem
 Siloed to Connected
 SDK/Data API Layer



Cloud Analytics
 Hindsight to Foresight
 Data Processing, Storage
 & Analytics Layer

IoT/Edge
 Sense to Action
 IoT API Layer



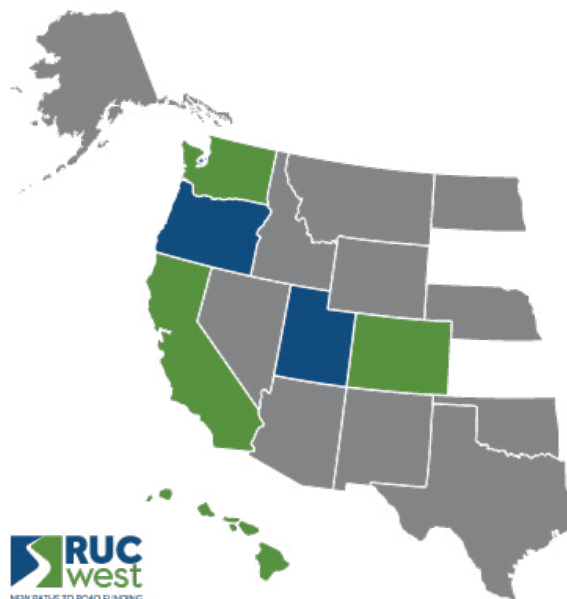
⁴ <https://www.tripcheck.com/>

WORK WITH OTHER JURISDICTIONS

Oregon continues its membership in RUC West, which is a consortium of 17 western states. Oregon provides administrative support to RUC West, which includes contracting support. Grant work includes the following:

- » **STSFA Grant for 2017:** This grant was awarded to test the requirements for interstate interoperability using a clearinghouse. This work is underway, using anonymized data from California and Oregon.
- » **STSFA Grant for 2018:** Designed to study the RUC/automated vehicle (AV) interface to determine whether AVs might be placed on a RUC at the state level, as well as in an interoperable, regional RUC system. This research could inform decisions about implementing a mandatory RUC for vehicles. Deployment of levels 3, 4, and 5 AVs (autonomous vehicles capable of driving without human intervention) could present an opportunity to implement the first mandatory RUC for many states. Establishing data sharing and reporting requirements necessary for AVs to implement a RUC would also ensure that the vehicles have built-in telematics capabilities that enable them to fairly and efficiently contribute for their use of the roadway. This grant work is being done by Milestone Solutions, in partnership with other private sector firms.
- » **STSFA Grant for 2019:** A demonstration of blockchain to perform clearinghouse functions, which would include interoperability between jurisdictions. This grant work will leverage lessons learned from the RUC West 2017 grant, which was to test the clearinghouse requirements developed by RUC West.

- » **STSFA Grant for 2020:** A forum to exchange information on the current state of road usage charging, its intersection with tolling, and other topics. Oregon will lead the effort along with other RUC West states.



LEGEND

Tier 1: Active Program

Tier 2: Exploring & Piloting

Tier 3: Monitoring Trends

ODOT collaborated with Washington on its road usage charge pilot that was designed to address the legal, fiscal, operational, and policy impacts of RUC. Other jurisdictions that participated included Idaho and Surrey, British Columbia. The final report concluded, among other things, that RUC was a feasible revenue option. It recommended that the legislature enact a RUC on a small number of

vehicles, including alternative fuel vehicles, as the first step in a 10-25 year transition away from fuel taxes.⁵

Utah went live with its RUC program in 2020, after consulting with ODOT on design, outreach, and technology solutions. ODOT continues its work with other RUC West states, sharing information about program design, standards, and lessons learned with Ohio, Virginia, and Pennsylvania, among others. Staff provide information through webinars like those sponsored by the Mileage Based User Fee Alliance,⁶ and International Road Federation.⁷ Information was also shared at the National Governors Association Transportation Electrification Workshop in 2019.

5 <https://waroadusagecharge.org/final-report/>

6 <http://www.mbufa.org/>

7 <https://www.irf.global/>



WHAT'S NEXT?

Because the entire fleet is changing and becoming more efficient, ODOT continues to monitor the market. Meanwhile, it is using the existing OReGO program to build a foundation upon which future pricing mechanisms can build. One example of this is the Local Road Usage Charge Pilot, which will test whether the technologies used in the base program can also be used to support a local option RUC, congestion pricing or tolling. The systems are similar because those both require data collection about where the vehicle is driven, pricing, and a mechanism for collecting revenues. While the systems are similar because they require data collection about miles driven and where, transaction processing based on the applicable business rules, and account management to actually collect the revenues from the drivers.

ODOT is also engaged with groups such as the Mileage Based User Fee Alliance, the Eastern Transportation Coalition, RUC West, and AASHTO to ensure that common requirements are being developed. This will ensure interoperability and should result in lower administrative costs.

Public education continues. Following an extensive effort to determine public sentiment about transportation funding and how they relate to our roads, the website was redesigned. A number of events were planned that involved going to communities and interacting with the public about road charging. After the State Fair in August 2018, and the Portland International Auto Show in February 2019, other events were canceled due to the pandemic. Planning for this work will resume in 2021.

NEXUS TO OTHER ODOT EFFORTS

Development of the OReGO program is a key initiative in ODOT's Strategic Action Plan and in its Statewide Transportation Strategy. Actions being taken to continue OReGO's development include much of the work outlined above. The Office of Innovative Funding works closely with the Climate Office to ensure that the program's development supports the agency's greenhouse reduction goals. In addition, it is also connected to another effort – development of a connected vehicle ecosystem that will support OReGO and ODOT's intelligent transportation system.

SUMMARY

The Oregon Department of Transportation continues to successfully operate the first fully functional road usage charge program in the country while continuing to conduct research to prepare for a mandatory program. Federal grants and work with other states have enabled the OReGO program to enhance its operations and continue to learn about how to best administer this type of revenue model.

The Road User Fee Task Force, in partnership with ODOT, welcomes the opportunity to share lessons learned from Oregon's Road Usage Charge Program and provide additional information to the Legislature at any time.

