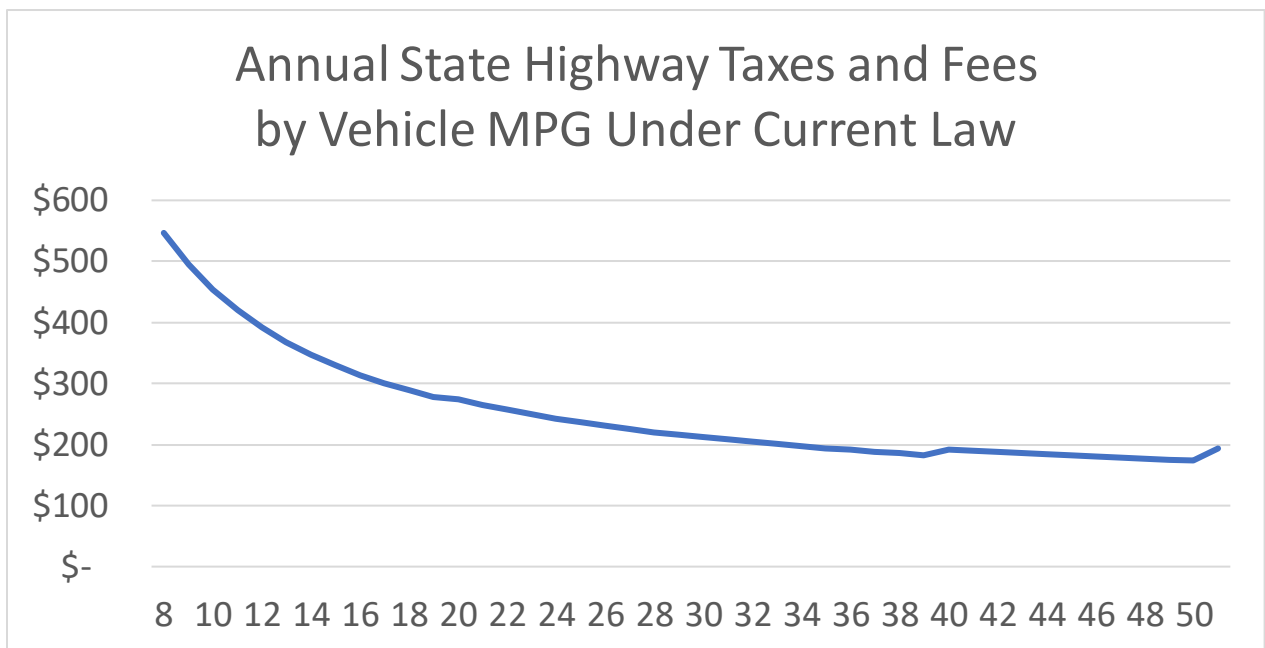


# Road Usage Charge Policy & Implementation Options

Oregon is pioneering the development and implementation of road usage charging (RUC), in which drivers pay by the mile for their use of the state’s public roads and highway system. As an integral component of an overall set of road taxes, a RUC should be designed to ensure that all people pay their fair share for use of the roads in order to ensure sufficient and reliable transportation funding and make up for reduced revenue as vehicles become increasingly fuel efficient and pay less in fuels tax.



Since its launch in 2015, OReGO has proven it is a viable method for raising revenue to fund the transportation system. As ODOT is faced with a challenging financial and budgetary landscape in the immediate years to come, the agency finds itself with the opportunity to further develop and expand its road usage charge program, but there are important questions as to how an expanded program should be designed and implemented.

ODOT has initially identified three primary options for consideration. Each of the options is dynamic – additional specific policy choices under each option allow for several permutations or variations on the overarching idea. Brief descriptions of the options are below, followed by a more detailed comparison.

## Major Policy Decisions

A number of policy decisions need to be determined for any option.

- *Which vehicles will be subject to RUC.* In the past, RUFTF and ODOT have focused on enrolling high-efficiency vehicles that currently pay much less than other vehicles, either based on fuel efficiency ratings (30 MPG and above) or motive power (hybrid, plug-in hybrid, and battery electric), in order to maximize net revenue gains; other states have also focused RUC on efficient vehicles. However, perceptions of fairness may dictate that all vehicles should be enrolled in RUC, perhaps over time. On the other hand, enrolling more vehicles will increase operational costs, likely reduce revenue because low-efficiency vehicles would pay less under a RUC than they pay in fuels tax (unless the RUC is an additional charge), and could give a break to gas guzzlers, which runs counter to climate policies.
- *Whether RUC is a replacement for or in addition to fuel tax.* Direction from RUFTF and legislators has generally been that RUC should be a replacement for fuel tax, so no vehicle should pay both RUC and fuel tax, to avoid the charge that it is an additional tax. However, this limits potential revenue; a RUC that is applied to all vehicles in addition to existing taxes and fees would lead to greater gross revenue increases (though would also have high collection costs). But creating an additional tax on all vehicles could face significant challenges in gaining public acceptance.
- *How to use registration fees to balance costs for different types of vehicles.* The current registration fee regime in Oregon applies higher registration fees to hybrids and EVs, though these supplemental fees are not sufficient to achieve parity between low-efficiency internal combustion engine (ICE) vehicles and efficient vehicles, such as hybrids and EVs. These rates can be adjusted to ensure that vehicles with different fuel efficiencies pay what is approximately equivalent to other vehicles while avoiding glaring inequities, such as charging high-efficiency vehicles more. However, this may create significant complexities in registration fees that could be challenging to implement and difficult for the public to understand.
- *How to achieve high levels of compliance.* Compliance generally has three components: education, assistance, and enforcement. If the first two are done well, enforcement activities are generally minimal. However, the penalties for non-compliance must be sufficient to drive compliance, and they must be enforced consistently. Tax programs achieve public support and compliance through fairness, simplicity, and administrative ease; policy decisions resulting in a more complex system could complicate implementation and public understanding, making it more challenging to ensure compliance.

## Major Issues in Implementing RUC

Beyond any questions about public acceptance or political viability, a number of major issues need to be addressed to implement RUC effectively.

- *Technology for mileage data collection.* Currently, the most common option for reporting mileage in RUC programs is a mileage reporting device (MRD) that plugs directly into the on-board diagnostic port of a participant's vehicle. However, MRDs can be easily removed from the port, and they are comparatively expensive because they require a special configuration and data transmission costs. A large-scale mandatory program likely requires a different technology—either lower-tech, such as manual reporting of odometer readings, or higher-tech, like direct access to vehicle telematics data. While telematics systems are installed in most new cars, they are not included in older models. What's more, automobile manufacturers have not been willing to provide telematics data to government agencies; legislative direction will likely be necessary to access this data.
- *Internal capacity & systems.* For any of the three options, ODOT anticipates needing to acquire a commercial back-office system (CBOS) to manage enrollments and process data. ODOT would likely need a customer service center (CSC), as well.
- *Cost.* The fuels tax is extremely inexpensive to collect due to the small number of entities that pay it; RUC will be more expensive, because it is similar to the collection of vehicle fees through DMV or weight-mile tax through CCD is today. Because no one has implemented a large-scale RUC program and the technology is not yet well-developed, the cost is not known. When OReGO was created, ODOT elected to avoid a large capital expenditure until the requirements were tested and relatively stable, and this has resulted in contracts that have had private sector entities (account managers) provide the technology. ODOT will make diligent efforts to minimize costs through means such as gaining low-cost access to telematics data and initially defaulting most users into a manual reporting option. ODOT is rebuilding its RUC cost model with the latest data and assumptions to be able to better estimate costs.
- *Local option RUC.* If RUC replaces the fuels tax as the largest source of transportation funding, local governments may want to have an opportunity to levy a local option RUC. However, this would require that most or all RUC customers provide location data so they could be charged for use of a local jurisdiction's roads.
- *Enforcement.* RUC will need to have enforcement mechanisms put in place for those who do not comply with reporting their mileage. For example, any vehicle required to pay RUC that failed to report miles or pay their required charges could be defaulted into a flat annual fee that would be set at a relatively high level to incentivize compliance. Other enforcement mechanisms, such as refusing to register vehicles that fail to pay and civil penalties, could also be considered. An appeal process that ensures due process would also need to be implemented.

## Options

The following options take different approaches to the major policy decisions listed above.

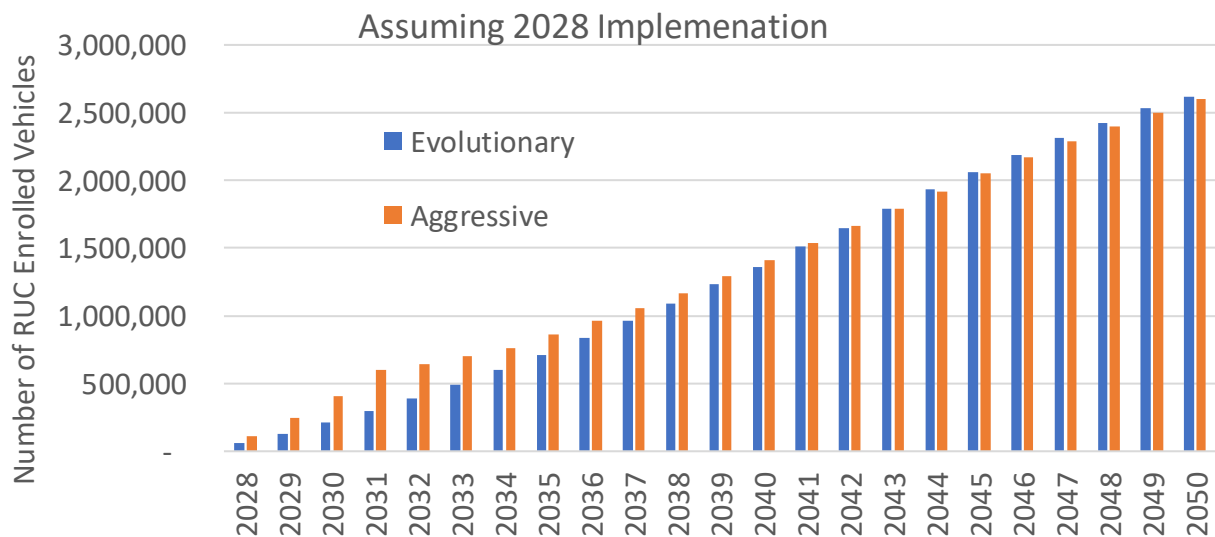
### Option 1 – Evolutionary Growth

The first option resembles recent legislative efforts in 2021 and 2023 that would require new highly efficient vehicles to enroll in OReGO. Policy decisions would need to be made regarding eligibility, such as which model year to begin with and whether vehicle efficiency (i.e. MPG rating) and/or motive power (i.e. internal combustion/hybrid/plug-in hybrid/electric) would be the basis for the mandate. For subject vehicles, RUC would serve as a replacement for the fuels tax and the supplemental registration fees for efficient vehicles; vehicles not required to join would continue to contribute via fuels tax and registration fees. This option could be paired with an immediate increase in the hybrid/EV registration fees prior to the mandate taking effect to achieve parity with ICE vehicles, generate immediate revenue, and incentivize drivers to enroll in OReGO.

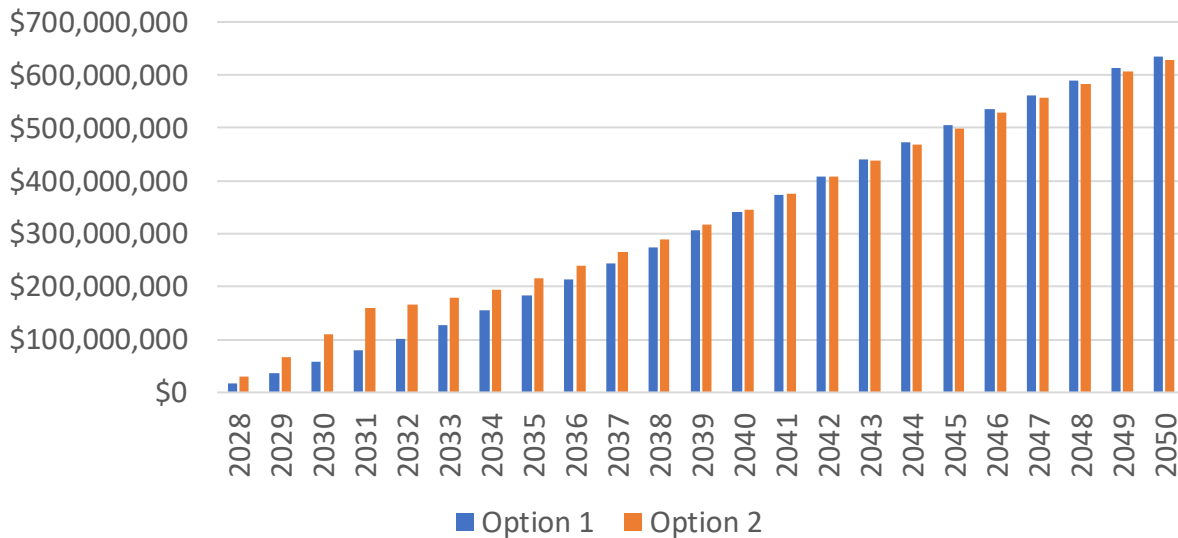
### Option 2 – Aggressive Growth

The second option builds on Option 1 and increases the number and type of vehicles initially subject to mandatory participation in RUC. This option would apply to all existing and new passenger vehicles (not just new vehicles as in Option 1) that are not powered by internal combustion engines – that is, all hybrid, plug-in hybrid electric, and battery electric vehicles. For subject vehicles, RUC would serve as a replacement for the fuels tax and the supplemental registration fees for efficient vehicles; non-subject vehicles would continue to contribute via fuels tax and registration fees. This option could be paired with an immediate increase in the hybrid/EV registration fees prior to the mandate taking effect to achieve parity with ICE vehicles, generate immediate revenue, and incentivize drivers to enroll in OReGO.

## RUC Enrollment Under Options 1 and 2



## RUC Gross Revenue by Year



### Option 3 –Revolutionary Growth (Phased Approach)

The third option reflects a seismic shift in how the transportation system would be funded in the state by implementing RUC as an additional tax on all vehicles, phased in over time to ease implementation by adding vehicles gradually rather than in a single step. Implementation could proceed along these lines:

- In 2026, the supplemental registration fee on hybrids and EVs would be increased to achieve parity with ICE vehicles, providing an immediate infusion of revenue.
- In 2029, all non-internal combustion engine vehicles (hybrid, plug-in hybrid electric, and battery electric), including both new and existing vehicles, would be required to enroll in RUC, as in the Aggressive Growth Option.
- In 2031, all new vehicles would be required to enroll in RUC, on the theory that most new vehicles will be relatively fuel efficient by this point.
- In 2033, all vehicles would be required to start enrolling in RUC.
- Registration fees by MPG or motive power would need to be adjusted over time in fairly complex ways to avoid significant inequities among vehicles. For example, in 2029, when highly efficient vehicles would start paying RUC on top of their existing taxes and fees, registration fees on lower efficiency vehicles would likely need to be adjusted upward so that efficient vehicles now subject to a RUC don't pay more than ICE vehicles (depending on fuel tax rates at the time).

	<b>Option 1 Evolutionary Growth</b>	<b>Option 2 Aggressive Growth</b>	<b>Option 3 Revolutionary Growth (Phased)</b>
<b>Overview</b>	New highly efficient vehicles (over 30 MPG) would be required to enroll in RUC starting with a specified model year on a specific date. Could be paired with an immediate increase in the hybrid/EV registration fees to achieve parity with ICE vehicles, generate immediate revenue, and incentivize drivers to enroll in OReGO.	All highly efficient non-internal combustion engine vehicles (hybrid, plug-in hybrid electric, and battery electric) would be required to enroll in RUC. Could be paired with an immediate increase in the hybrid/EV registration fees to achieve parity with ICE vehicles, generate immediate revenue, and incentivize drivers to enroll in OReGO.	All passenger vehicles would be required to enroll in RUC over time via a phased approach. RUC would be paid in addition to existing taxes and fees: vehicles that use liquid fuel would continue to pay fuels tax; electric vehicles would continue to pay enhanced registration fees.
<b>Enrolled Vehicles (2030)</b>	200,000	400,000	400,000
<b>Gross Revenue</b>	Lowest in initial years; would grow over time as the fleet shifts to efficient vehicles and converge with Option 2. In 2032, this option is estimated to generate about \$100 million in gross revenue.	Moderate in initial years; would start higher than Option 1 but would grow at a similar rate as the fleet shifts to efficient vehicles. In 2032, this option is estimated to generate about \$165 million in gross revenue.	Highest; could provide significant gross revenue, depending on rate per mile. Every one-cent increase in the RUC rate would raise about \$300 million per year in gross revenue at full implementation.
<b>Cost to Operate</b>	Lowest total in initial years, given smaller number of vehicles; would grow over time and gap with Option 2 would shrink.	Higher total than Option 1 in initial years, but gap with Option 1 would shrink over time as number of vehicles converge.	Highest total, though cost per vehicle would likely be lower due to economies of scale.
<b>Net Revenue</b>	Low in initial years; would grow over time and converge with Option 2.	Moderate in initial years due to larger number of subject vehicles but would grow over time and converge with Option 1.	Net revenue potential is significant in the long-term given application to all registered vehicles over a shorter timeframe and lower operating costs per vehicle. Would resemble Option 2 net revenue in the first few years.

	<b>Option 1 Evolutionary Growth</b>	<b>Option 2 Aggressive Growth</b>	<b>Option 3 Revolutionary Growth</b>
<b>Method/ Technology to Collect Mileage Information</b>	Natural program growth allows for technology to evolve with increasing enrollment; purchasers of new vehicles might be more willing to opt for more advanced options such as in-vehicle telematics. Manual reporting will still be important as a low-tech, low-cost option. Mileage reporting devices that plug into the vehicle could still be viable in the near term but would entail increased costs to ODOT due to increased participation and the associated data communications costs and should be phased out over time.	Broader mandate would apply to older vehicle models, increasing the importance of providing a manual option for those who do not have, or do not want to use, telematics. Purchasers of new vehicles might be more willing to opt for more advanced options such as in-vehicle telematics. Mileage reporting devices that plug into the vehicle could still be viable in the near term but would entail increased costs to ODOT due to the broader mandate and associated data communications costs and should be phased out over time.	Broadest mandate, applying to vehicles that do not have on-board ports; data communication costs for plug-in devices would be exorbitant, so mileage reporting devices that plug into the vehicle should be de-emphasized. Heavy reliance on manual reporting and odometer checks and eventually in-vehicle telematics. Could be implemented by DMV as an adjunct to the vehicle registration process.
<b>Timeline to Implementation</b>	Shortest. ODOT would need time to set up CBOS and make program enhancements, but agency had been preparing for potential similar policy proposed in previous legislative sessions. Implementation likely feasible by 2028.	Medium. Similar considerations to Option 1 in setting up CBOS and increasing capacity to handle influx, but in a more significant manner. Implementation likely feasible by 2029 or 2030; longer timeline is due to need to enroll significantly more vehicles on day 1 rather than relying on enrolling new vehicles over time.	Longest. Requires substantial increase to OReGO program staffing and/or DMV staffing and need to educate the public. Significant changes to existing processes to include manual odometer reading or reporting for older vehicles. This will require additional systems to house the captured data. Different enforcement mechanisms will need to be developed.

	<b>Option 1 Evolutionary Growth</b>	<b>Option 2 Aggressive Growth</b>	<b>Option 3 Revolutionary Growth</b>
<b>Implementation Issues &amp; Considerations</b>	<p>If based on vehicle efficiency, challenges related to accuracy of decoding VINs with efficiencies near eligibility threshold. Reliance on VIN decoding could be minimized by relying on dealers to provide that data at point of sale.</p> <p>Effective and low-cost implementation would require ready access to vehicle telematics data, which is not yet made readily available to government agencies absent the vehicle owner providing it.</p>	<p>Effective and low-cost implementation would require access to vehicle telematics data, which is not yet made readily available to government agencies absent the vehicle owner providing it.</p>	<p>Full implementation likely means heavy reliance on manual reporting, which complicates interoperability across states and federal government. Reliance on manual reading of odometers for such a large number of vehicles would entail a significant undertaking and require new processes, procedures, and systems. Might necessitate certifying odometer inspection agents that would likely seek a portion of the revenue in exchange for providing the service. If odometer readings and subsequent RUC payments are tied to the registration renewal cycle every two years, customers are faced with larger RUC bills. Enforcing odometer checks and ensuring compliance with the policies would be very challenging at this scale. Given drastic change for all vehicles, public education leading up to the implementation of RUC-for-all would be paramount.</p>
<b>Policy Considerations</b>	<p>Would require determining which vehicles are subject to RUC, including which vehicle model year to start with and whether to base this on efficiency (MPG) or motive power (ICE, hybrid, electric, etc.) or both. Authority to access vehicle data when telematics become predominant would be important. Facilitates possible interactions between a RUC system and the federal fuels tax – how to collect the federal government’s share. Aligns the program with what other states are considering, which increases the likelihood of future interoperability with other states.</p>	<p>Authority to access vehicle data when telematics become predominant would be important. Facilitates possible interactions between a RUC system and the federal fuels tax – how to collect the federal government’s share.</p>	<p>Authority to access vehicle data when telematics become predominant would be important.</p>