



Oregon

Kate Brown, Governor

Department of Transportation

Office of Innovation

355 Capitol St NE

Salem, OR 97301

TO: Road User Fee Task Force Members
FROM: ODOT Office of Innovation Staff
SUBJECT: Applying an MPG Minimum to the OReGO Program
DATE: May 30, 2018

Executive Summary

The OReGO program currently accepts passenger vehicles of any efficiency or miles per gallon (MPG) rating. In the February 2018 meeting, RUFTF directed ODOT to investigate setting an MPG minimum to enter the program. Setting an MPG minimum will serve two purposes: 1) allow the program to focus on one goal of RUFTF, which is to fairly charge highly efficient or electric vehicles for their use of the roadways, and 2) lower administrative costs by reducing the number of vehicles in the program that already effectively pay for their road use through fuels tax. RUFTF requested additional information from ODOT staff on the impact of administrative costs on implementing a 20 MPG minimum, and if it should be higher than 20 MPG.

In order to optimize program performance and continue to seek a broad voluntary enrollment, ODOT recommends setting the MPG minimum for the OReGO Program at 20 MPG while it is still in a voluntary program. ODOT recommends re-evaluation the MPG minimum if OReGO transitions to a mandatory program.

Discussion

RUC Formula and Enhanced Registration Fee Surcharge Tiers

The RUC rate used in OReGO was established to be equivalent to the amount of fuels tax a 20 MPG vehicle pays on a per-mile basis. Setting the minimum threshold to enter OReGO below 20 MPG will always cause a loss of revenue because vehicles less than 20 MPG already pay fuels tax efficiently—at the pump.

The 20 MPG standard also aligns with one of the enhanced registration fee surcharge tiers adopted in the transportation package (House Bill 2017). As part of that legislation, in an attempt to account for high-efficiency vehicles not paying for their use of the road through fuels tax, vehicles were grouped into tiers, with the most efficient vehicles paying the largest enhanced registration fee surcharge. Those tiers were divided as follows: 0-19 MPG, 20-39 MPG, 40+ MPG and fully electric vehicles. Aligning the OReGO enrollment threshold with these tiers will

allow for administrative efficiency and flexibility to expand the enhanced registration opt out option to this category.

As a result of these two considerations, staff recommend the MPG minimum to enter OReGO be set at least 20 MPG.

Cost Recovery

To determine if the minimum to enter OReGO should be 20 MPG or a higher rate, there are additional considerations.

There are several factors that determine whether vehicle owners pay more through a RUC mileage fee or a conventional fuels tax at the pump. These variables include annual miles driven, how those miles are driven (city/highway), vehicle fuel economy, RUC collection costs (which vary according to the level of economies of scale achieved), future RUC collection costs, the RUC rate, the fuels tax rate, and vehicle registration fee surcharges that vary depending upon fuel economy.

ODOT economists conducted a per-vehicle breakeven revenue analysis. For the purpose of this discussion, a given vehicle's "breakeven" point is the miles driven in a single year beyond which the vehicle generates more net revenue through RUC than fuels tax, factoring in the administrative costs of the program at various levels of participation.

The result of this analysis is shown in Figure 1 below. The chart is based on tax and fee rates enabled by HB 2017 at full implementation (January 1, 2022), and relies on the following assumptions:

- A state fuels tax rate of 40 cents per gallon
- A RUC rate of 2.1 cents per mile
- Incremental RUC collection costs of:
 - i. \$59 per vehicle per year for 1,000 OReGO participants;
 - ii. \$51 per vehicle per year for 100,000 OReGO participants;
 - iii. \$35 per vehicle per year for 1,000,000 OReGO participants; and
 - iv. \$24 per vehicle per year for 4,000,000 OReGO participants.

For reference, the average number of miles traveled annually by a light duty vehicle in OReGO is estimated to be about 10,000. Unfortunately, we do not have estimates of annual miles traveled by MPG category, but studies indicate lower operating costs (e.g., fuel consumption costs) are correlated with more use in terms of annual miles, and higher operating costs are correlated with less use.

RUC BREAKEVEN VMT (By OReGO Participation Level)

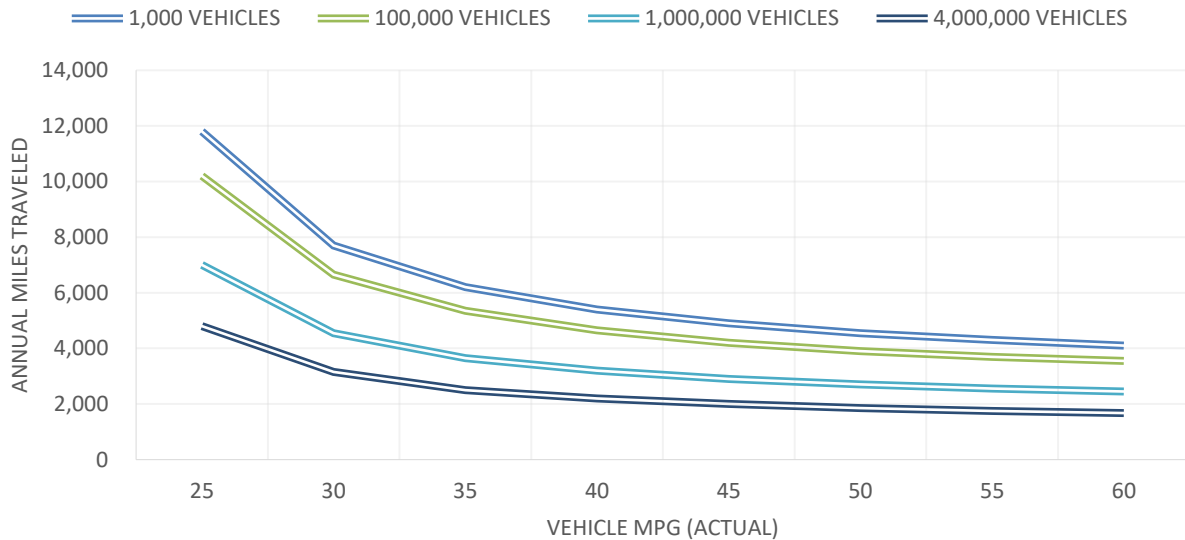


Figure 1

To illustrate, given a participation level of 1,000 vehicles (roughly the current OReGO enrollment), a vehicle that has a 30 MPG rating generates more revenue for the state through RUC than it would through fuels tax if that vehicle is driven approximately 8,000 miles annually. With far more vehicles in the program, economies of scale would allow the state to collect more through a RUC than conventional fuels tax with fewer miles driven.

This formula suggests that vehicle categories that have breakeven “Annual Miles Traveled” under 10,000 per year could be good marketing targets for OReGO enrollment. At current participation levels, the annual VMT level suggests a fuel efficiency rating between 25-30 MPG may be an appropriate target for RUFTF to consider if it elects to use this rationale to set an MPG minimum for the OReGO program.

Conclusion

While OReGO remains a voluntary program, ODOT recommends setting a minimum threshold of 20 MPG for new vehicles entering the program, and grandfathering current enrollees with vehicles with less than a 20 MPG rating. Setting a minimum threshold is a good first step as the program evolves from strictly voluntary in 2015 to a potential future mandatory program. This will reduce program costs, align with the MPG categories from the transportation package, and follow the policy goal of RUFTF—to ensure all road users adequately pay for their use of the road by focusing on high efficiency vehicles.

Although the current breakeven analysis shows setting the target closer to 25-30, the variability of enrollment and annual VMT can cause the target MPG to change. In addition, as OReGO continues to develop it is helpful to include vehicles between 20-30 MPG because it allows more vehicles in the program to voluntarily test new technologies and system enhancements on our path towards mandatory RUC. In a mandatory program, once economies of scale are reached, RUFTF may want to re-evaluate the MPG minimum for entry into a RUC program.