BUILDING THE ROAD TO SUSTAINABLE FUNDING

A decade’s worth of research in Washington State on road usage charging
WASHINGTON’S PATH TO A RUC PROGRAM

2012 – 2015
INITIAL ASSESSMENT & CONCEPT DEVELOPMENT
- 2012 Legislature directs Commission to conduct RUC Assessment
- Convened Steering Committee
- Crafted Guiding Principles
- Determined feasibility
- Developed operational concepts
- Conducted business case analysis
- Designed pilot alternatives

2016 – 2020
PILOT TESTING & POLICY ANALYSIS
- Conducted statewide pilot test with 2,000+ drivers
- Tested multiple mileage reporting methods
- Demonstrated interoperability with OR, ID, BC
- Conducted widespread public outreach
- Addressed 10+ policy issues through analysis and alternatives
- Issued recommendations

2021 – Present
SYSTEM READINESS & CONTINUED RESEARCH
- Legislative proposals emerge
- Updating financial analysis
- Assessing equity impacts and conducting statewide outreach
- Exploring service options and operational innovation
- Developing cost reduction strategies
- Designing mini-pilot tests for emerging concepts

State funded
Federally funded
SITUATION ASSESSMENT

✓ **Systems are ready:** After nearly a decade of research and development, Washington has the ability to implement a small-scale RUC program

✓ **Privacy can be protected:** Offering non-GPS approaches and privacy protections in law are key. The only data needed to implement RUC is a periodic odometer reading

✓ **RUC harmonizes transportation funding and climate policy objectives:** RUC enables us to sustain usage-based funding without continuing to rely heavily on fossil fuel consumption and emissions

✓ **RUC offers savings for low-income drivers:** The lowest-income vehicle owners pay the most in gas taxes - tend to own older, less fuel-efficient vehicles. RUC can shift the tax burden to be more equitable

✓ **Further research and testing reduces costs and improves user experience:** Research completed in 2021, along with pilots to be conducted in 2022, will culminate in a comprehensive roadmap for transitioning to RUC. This transition begins with enactment of a small-scale RUC program as early as 2023
RUC PILOTS CONNECT THE PUBLIC TO THE FUTURE

Testing informs decision making and public opinion
WASHINGTON’S RUC PILOT PROJECT

• 2018/2019 year-long, statewide test of Washington-designed RUC system

• 2,000 test-drivers statewide

• Cross-border testing:
  • City of Surrey, BC
  • Idaho Transportation Department
  • Oregon Department of Transportation

• Conducted the nation’s first real cash, transactional test with Oregon utilizing a virtual “clearinghouse/ HUB” approach

• Funded by the STSFA Federal Grant Program
MILEAGE REPORTING METHODS: DRIVERS GET TO CHOOSE

1. **ODOMETER READING**
   - Post-pay for miles reported quarterly
   - Report miles either electronically or in person
   - 28% use

2. **MILEAGE PERMIT**
   - Pre-select a block of miles (1,000, 5,000, 10,000)
   - Report odometer either electronically or in person every three months
   - Obtain additional miles as needed to keep mileage permit valid
   - 1% use

3. **MILEMAPPER SMARTPHONE APP**
   - Records miles using a smartphone
   - Works with all vehicles
   - Navigational GPS can be turned on/off
   - Available only on iPhone iOS
   - 14% use

4. **PLUG-IN DEVICES (WITH OR WITHOUT GPS)**
   - Automated mileage meter with GPS and non-GPS options
   - Plugs into OBD-II ports in vehicles 1996 or newer
   - GPS-enabled devices automatically deduct out-of-state miles
   - 56% use with GPS
   - 37% use without GPS
   - 19% use without GPS

LOW-TECH

HIGH-TECH

LOW-TECH

HIGH-TECH
PARTICIPANT ADVICE TO ELECTED OFFICIALS AS THEY CONSIDER NEXT STEPS FOR RUC STATEWIDE

- Implement a RUC (61%)
  - 423 respondents
- Narrowly implement a RUC (28%)
  - 284 respondents
- Take no action (10%)
  - 152 respondents

- Move forward now to implement a RUC system in place of the gas tax as soon as the program can be made ready (28%)
- Gradually phase in a RUC system over a five to ten year period so that it eventually replaces the gas tax (33%)
- Apply a RUC system only to vehicles that are paying no to very little gas tax (such as hybrids) compared to the average all-gas vehicle (19%)
- Apply a RUC system only to all-electric vehicles that are paying no gas tax (9%)
- Take no further action on starting a RUC system for the foreseeable future (10%)
RUC = FAIRNESS

The gas tax today is a “some users pay – all users benefit” revenue source
TAXING GALLONS HAS FAIRNESS CHALLENGES
RUC RESTORES THE “USER-PAY” PRINCIPLE

• The gas tax is fair because it is based on a simple principle: “user pays, user benefits”
  - The more drivers use the roads, the more gas they purchase, thus the more they pay in gas taxes for our roads & bridges

• However, as the adoption of EVs and hybrids expands, the gas tax is moving towards a “some users pay - all users benefit” model

[Diagram showing per-mile revenue from 49.4 cents/gallon fuel tax by vehicle MPG]

- At 20.5 MPG, the average Washington driver pays 2.4 cents/mile in state fuel tax
PRESERVING CURRENT GAS TAX REVENUES WILL REQUIRE FREQUENT INCREASES

- For the gas tax to continue generating the current level of revenue in Washington State, the gas tax would need to increased \(1.7^*\) cents per gallon, every year through 2040. *Assumes a moderate pace of adoption of high MPG vehicles and EV’s.

- As the gas tax is increased, low-income drivers - who tend to drive older, inefficient vehicles - carry a disproportionate financial burden.
What you drive, not how far you drive, determines the financial impact of RUC relative to gas taxes.
RURAL & LOW-INCOME DRIVERS PAY LESS UNDER RUC

- Rural & low-income households tend to drive lower MPG vehicles – and in many cases drive long distances to reach their jobs and access essential services
- Because of this, these drivers pay disproportionately more for roads under the gas tax
- Rural households would save under a RUC compared to the gas tax, on average around $25 per year savings
MOST LOW-INCOME HOUSEHOLDS WILL PAY LESS UNDER RUC COMPARED TO THE GAS TAX

<table>
<thead>
<tr>
<th>Census tract average household income</th>
<th>Census tract average MPG</th>
<th>Fuel tax per 10,000 miles driven</th>
<th>RUC per 10,000 miles driven</th>
<th>Change under RUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50k</td>
<td>20.0</td>
<td>$247</td>
<td>$240</td>
<td>$7</td>
</tr>
<tr>
<td>$50-75k</td>
<td>20.1</td>
<td>$246</td>
<td>$240</td>
<td>$6</td>
</tr>
<tr>
<td>$75-100k</td>
<td>20.5</td>
<td>$241</td>
<td>$240</td>
<td>$1</td>
</tr>
<tr>
<td>$100-150k</td>
<td>21.4</td>
<td>$231</td>
<td>$240</td>
<td>$9</td>
</tr>
<tr>
<td>Over $150k</td>
<td>22.6</td>
<td>$219</td>
<td>$240</td>
<td>$21</td>
</tr>
</tbody>
</table>
Fuel tax represents 4% of low-income household expenditures, but will increase as fuel taxes increase. With RUC, targeted discounts can be offered.
RUC RATE SETTING CAN REDUCE FINANCIAL IMPACTS ON LOW-INCOME DRIVERS

- RUC reduces the disproportionate burden that the gas tax places on low-income drivers – amplified each time the gas tax is increased

- Offer a discounted RUC rate for qualified low-income households

- Offer periodic payments for RUC

- Offer refunds to qualified low-income households who overpay in fuel taxes (cash or credits toward other taxes)
TRANSITIONING TO AN EV FUTURE

RUC enables a transition away from fossil fuel consumption while sustaining transportation funding
RUC HARMONIZES CLIMATE & ROAD FUNDING POLICIES

• High fixed costs of ownership remain the biggest barrier to EV adoption, a problem compounded by flat EV registration fees

• **RUC allows policymakers to reward EV mileage** by offering RUC as an alternative to a flat fee ($225 in WA. State), and/or with a reduced introductory per-mile rate

• **RUC provides funding for critical transportation infrastructure** that will be used increasingly by EVs in the future as the fleet transitions away from fossil fuels
HYBRID & EV OWNERSHIP INCREASES WITH INCOME

- Washington State is looking at RUC as a replacement to the state gas tax as the vehicle fleet transitions to EVs
  - Assume the gas tax will remain in place during a transition to RUC
- EV incentives are key to supporting an EV transition and are needed as states consider legislation to ban gas-powered vehicles in the coming decade
EVs REPRESENT ONLY ONE PART OF THE EQUATION

- EVs can serve as a starting point for RUC, but they only address a portion of the forecasted revenue gap during a transition.

- A moderate EV transition pace is reflected in this chart:
  - 27% of cars are EVs by 2040
  - 73% have a 29 MPG average (gas and hybrid vehicles)

- By 2040 fuel tax revenues are forecasted to decline nearly 50% on a per mile basis.
RUC PRESENTS POLICY OPPORTUNITIES TO SUPPORT AN EV TRANSITION

- RUC maintains significant operating cost advantages of owning an EV
- Waive current $225 EV flat fee for EVs paying RUC
- Offer an introductory discounted RUC rate or cap for EVs, phased out as EV adoption goals are achieved
- Waive current weight fees for EVs paying RUC

MONTHLY FUEL + ROAD USAGE CHARGE (RUC) COST PER 1,000 MILES TRAVELED

While RUC does result in drivers of fuel efficient vehicles paying a little more in taxes for transportation as compared to the gas tax, the overall cost advantage of owning a fuel efficient, hybrid, or EV remains significant.

For example, under RUC, owners of a Prius will pay $142 dollars per month less than the Ford pickup truck driver.
As research continues, legislative proposals come forward
## LEGISLATIVE PROPOSALS JUMPSTART DEBATE

<table>
<thead>
<tr>
<th>Policy choice</th>
<th>HB 2026 (2022)</th>
<th>SB 5444 (2021/22)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What vehicles are subject to RUC?</strong></td>
<td>• Voluntary: EVs purchased before 2025&lt;br&gt;• Mandatory: New EVs in 2025</td>
<td>• Voluntary: EVs in 2025&lt;br&gt;• Mandatory: All EVs in 2026</td>
</tr>
<tr>
<td><strong>When will other vehicles transition to RUC?</strong></td>
<td>• 2026: PHEVs can opt in&lt;br&gt;2027: Gas cars can opt in</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>What is the per-mile rate?</strong></td>
<td>2.5c/mi, capped at $225</td>
<td>2c/mi introductory rate 2.5c/mi in 2029</td>
</tr>
<tr>
<td><strong>What fees are waived for RUC-paying vehicles?</strong></td>
<td>$225 EV surcharge</td>
<td>$225 EV surcharge</td>
</tr>
<tr>
<td><strong>What mileage reporting methods must DOL offer?</strong></td>
<td>Odometer mileage reporting (may offer other methods)</td>
<td>Multiple mileage reporting methods, at least one non-GPS</td>
</tr>
<tr>
<td><strong>What legal privacy protections?</strong></td>
<td>Based on WSTC model policy</td>
<td>Based on WSTC model policy</td>
</tr>
<tr>
<td><strong>When is a fleet transition plan due?</strong></td>
<td>2029</td>
<td>2023</td>
</tr>
</tbody>
</table>
TRANSPORTATION COMMISSION PREPARATIONS
FOCUS ON ADVANCING SYSTEM READINESS

➢ Ongoing preparations with the State Department of Licensing (DMV equivalent) as the planned operator of the RUC program
   • Workshops on customer service, procurement, enforcement
   • Joint development of deployment scenarios, cost estimates

➢ 2022 research focused on near-term deployment challenges:
   • Self-reporting mileage solutions
   • RUC enrollment design & optimization
   • Designing flexible payment plans
   • WA State Goal: ban gas-powered cars by 2030 – updating revenue and financial analysis accordingly

➢ Keeping RUC and tolling separate
   • Collaboration to optimize customer support in the near-term between RUC and tolling systems, with integration as a longer-term prospect
For more information on Washington State’s RUC Assessment Visit:

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