WASHINGTON STATE ROAD USAGE CHARGE ASSESSMENT
PROBLEM

Gas tax won’t fund future needs
WASHINGTON STATE GAS TAX BREAKDOWN

<table>
<thead>
<tr>
<th>49.4¢</th>
<th>PER-GALLON STATE FUEL TAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.5¢</td>
<td>261 Transportation Partnership projects*</td>
</tr>
<tr>
<td>5¢</td>
<td>160 Nickel projects</td>
</tr>
</tbody>
</table>

= 8¢ 421 PROJECTS

- Available for use on state highways, bridges and ferries:
  - maintenance and operations
  - preservation
  - safety improvements

* Of the 9.5¢, 8.5¢ is used by the state for highway projects, 1¢ goes to cities and counties for street and road improvements.

** The 11.9¢ gas tax increase was phased in over two years - a 7¢ cent increase on 8/1/2015, and a 4.9¢ increase on 7/1/2016.
BY 2028, UP TO 74% OF WASHINGTON STATE GAS TAX REVENUES WILL GO TO DEBT SERVICE PAYMENTS*

*Based on Net Fuel Tax Revenue and Debt Service projections per the Nov 2018 Forecast.

- Debt service only includes debt first payable by the fuel tax. This excludes SR 520 corridor debt service (first payable by tolls). It includes debt service paid first with fuel tax revenues, then reimbursed by tolls or federal funds.
- WA state’s portion of fuel tax revenue does not include all fuel tax revenue pledged for debt service. For example, fuel tax revenue distributed to cities and counties is also pledged for debt service.
- Beginning in FY 2020, revenue from select vehicle related fees (VRF) are also projected to be pledged to debt service for selected state projects, as approved in 2015.
PLUG-IN ELECTRIC VEHICLES (PEVs) ARE ON THEIR WAY—THE ONLY QUESTION IS HOW QUICKLY?

• Most automotive manufacturers have publicly staked out their plans to electrify their lineups by 2030 (some sooner).

• China is driving growth in new vehicle sales (in 2018, US sales fell for the first time in history).

• European countries are adopting aggressive regulations on gas-powered vehicles (including banning new sales within the next decade). Automakers are adapting accordingly.
AUTO MANUFACTURERS SETTING THE PACE

• **Volvo**: Starting in 2019, every new model will be a hybrid or electric.

• **General Motors**: By 2023 they will have 20 electric models.

• **Toyota**: Plans to shift from limited to full-production of hydrogen fuel cell vehicles by 2025.

• **Ford**: Investing $11 billion by 2022 to build a line-up of 40 hybrid vehicles, including 16 fully electric models.

• **Tesla**: Model 3 was the top selling luxury car in 2018, selling just under 146,000 vehicles in the US.
Conservative forecasts say Washington’s vehicles will reach a 35 MPG average by 2035—a potential 45% reduction in gas tax revenue per mile driven. As vehicle MPG increases, gas consumption decreases, and thus gas tax revenues decrease as well.

The state gas tax increased in 2015-2016.
POTENTIAL SOLUTION

Road Usage Charge
ROAD USAGE CHARGE: A POTENTIAL SOLUTION

• A road usage charge is a per-mile charge drivers would pay for the use of the roads, rather than paying by the gallon of gas

• Washington is not alone – RUC West is a consortium of 14 western states who are collaborating:
  • 8 are conducting research
  • 5 are testing (CA, CO, HI, UT, WA)
  • 1 has a legislatively-enacted program (OR since 2015, UT in 2020)
WASHINGTON STATE’S RUC ASSESSMENT

2012 Legislative Mandate:

*Identify a sustainable, long-term revenue source for Washington state’s transportation system, and transition from the current gas tax*

The basis of the assessment:

- RUC rate tested: 2.4 cents per mile
  - State Gas Tax 49.4 ÷ 20 mpg (state average) = 2.4 cents / mile
- The pilot was a simulation of a real system
- We assumed revenue neutrality and focused on net revenue potential for both RUC and the gas tax over 24 years (2019 - 2043)
- Assumed drivers would pay either the RUC or the gas tax, but not both
- “Learned to walk before we talked” – established knowledge base before media was engaged
Legislature established RUC Steering Committee:

Three State Transportation Commissioners – one serves as Chair

Eight Legislators – four Senators and four Representatives

Representatives from:

- Auto and light-truck manufacturers
- Ports
- Environmental
- Counties
- Trucking industry
- Cities
- Public transportation
- Tribal

- Consumer/public
- WSDOT
- Department of Licensing
- Motoring public
- Business
- User fee technology
- Treasurer’s office
KEY FINDINGS TO DATE
TAXING GALLONS HAS REAL FAIRNESS AND EQUITY CHALLENGES

Per-mile revenue from 49.4 cents/gallon fuel tax by vehicle MPG

- Vehicles below average MPG pay more fuel tax per mile driven
- Vehicles above average MPG pay less fuel tax per mile driven

At 20.5 MPG, the average Washington driver pays 2.4 cents/mile in state fuel tax
What you drive will determine the cost impact of RUC:

- Less fuel efficient vehicles will see a decrease in the amount of taxes paid
- More fuel efficient vehicles will see an increase in the amount of taxes paid
- The total effect is that all drivers pay the same rate to use the roads—regardless of their vehicle’s MPG
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.
RUC ≠ TOLLING

RUC & tolling are separate tools in our tool box

• RUC is being looked at as a foundational funding source for the statewide transportation system, replacing the gas tax
  o Assumes drivers would pay RUC AND tolls – just like they pay gas taxes AND tolls today

• Tolling is used to pay for a specific project and/or manage demand on a specific corridor, with the revenues dedicated to that corridor or project

• While RUC could incorporate pricing for congested corridors, to do so requires the mandatory use of GPS – and this conflicts with a key priority:
  o Consumers must have a choice for how they report their miles, including not using GPS
  o Privacy trumps pricing
EVEN WITH ANNUAL GAS TAX INCREASES REVENUE WILL NOT KEEP UP WITH NEEDS

Sort of like scooping water out of a sinking boat…..

- The gas tax would have to be raised about 1.5 cents per gallon, per year on all vehicles from 2019-2043 in order to equal net revenues from a road usage charge of 2.4 cents per mile.

- By 2043, drivers would be paying 0.85 cents / gallon – with reduced purchasing power.

- Would not address growing funding needs for improvements nor maintenance – it would keep funding at status quo equivalent levels.
RUC ENABLES POLICY HARMONIZATION

A RUC system presents the opportunity to harmonize transportation energy and environmental imperatives:

- The gas tax is one dimensional – it is collected as a flat rate at the distributor level, and cannot be varied or customized.
- There are current Washington State laws and policy goals related to VMT and emissions reductions which are inherently in conflict with long-term transportation revenue needs.
- Less gas consumption = less revenue for roads.
- RUC is capable of accommodating policy goals and transportation revenue needs.
  - Depending on policy priorities, decision-makers could choose to vary RUC rates by factors such as vehicle MPG, vehicle weight, engine type, fuel source, etc.
OUT OF STATE DRIVERS

We need to be able to charge people from out of state for their use of Washington roads

In a potential RUC system:

• The state may keep the gas tax in place while it slowly transitions away from it, and towards a road usage charge

• Drivers will pay either the gas tax or the road usage charge – but not both
ALTHOUGH RUC IS MORE COSTLY TO COLLECT THAN FUEL TAX…
...RUC PROVIDES MORE SUSTAINABLE NET REVENUE

Net revenue in cents per mile

$0.00 $0.01 $0.02 $0.03

1990 2000 2010 2020 2030 2040

- Historical
- Flat Fuel Tax
- Index Fuel Tax
- Washington RUCs
RUC PILOT PROJECT
Inform design of a fair-share approach
WASHINGTN’S RUC PILOT PROJECT

2015 Federal FAST Act establishes grant program:

- Surface Transportation System Funding Alternatives (STSFA)

$8.474M awarded to Washington state:

- **Stage 1**: Final design and set-up, $3.874M (complete)
- **Stage 2**: 12-month live pilot, $3.675M (complete)
- **Stage 3**: Evaluation and reporting: $925K (underway)
WASHINGTON’S RUC PILOT PROJECT

Summary of Washington RUC Pilot Project:

- **Year-long**, statewide test of Washington-designed RUC system for **2,000** test-drivers

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

- **Additional partners:** Seattle Electric Vehicle Association and Plug-in America
MILEAGE REPORTING OPTIONS AT A GLANCE

1. 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

2. Milemapper smartphone app
   - Records miles using a smartphone
   - Works with all vehicles
   - Navigational GPS can be turned on/off
   - Available only on iPhone iOS

3. Odometer reading
   - Post-pay for miles reported quarterly
   - Report miles either electronically or in person

4. 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

LOW-TECH

- 28% use

HIGH-TECH

- 14% use

- 56% use with GPS

- 19% use without GPS

- 5% use

- 1% use

- 3% use
REPORTING MILES VIA SMARTPHONE

- App (iPhone only) developed for use by the Washington RUC Pilot Project
- Works with all vehicles – no in-vehicle hardware required
- GPS can be toggled on or off
- App provides breakdown of mileage traveled in / out of staff (provided GPS is on)
- Participants submit occasional odometer photo readings to help verify mileage driven
PARTICIPANT POOL: GEOGRAPHIC DISTRIBUTION

• Nearly 5,000 drivers from across the state expressed interest

• 2,000 spots were available - drivers from across the state participated

• The 2,000 participants reflected our state’s geographic distribution

% - Participant distribution
(%) - Population distribution
PARTICIPANT POOL: BY VEHICLE TYPE

- 74% Gasoline
- 8% Hybrid
- 8% Other
- 5% Electric
- 2% Diesel
- 2% Plug-in hybrid
WHAT WE’VE HEARD FROM DRIVERS

Over 15 million miles reported and mock-charged at 2.4 cents per mile

3 surveys, 6 focus groups, and the project help desk actively gathered feedback

Over 1,900 emails and phone calls received from test drivers (62%) and members of the public (38%)

Top concerns and questions:

- Privacy and data collection
- Compliance and administration costs
- Fairness and equity
- Travel between states
- Operational viability
RUC PILOT PARTICIPANT INPUT

Three Surveys. 12 months.
THINKING ABOUT YOUR FULL EXPERIENCE WITH THE RUC PILOT, HOW SATISFIED WERE YOU OVERALL?

91% were satisfied or very satisfied
BASED ON YOUR PARTICIPATION IN THE RUC PILOT, PLEASE INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE FOLLOWING:

I am more aware of:

- how many miles I drive each month than when I started the pilot
  - Strongly agree: 28%
  - Agree: 26%
  - Neither agree nor disagree: 30%
  - Disagree: 13%
- the amount of transportation taxes I pay than when I started the pilot
  - Strongly agree: 38%
  - Agree: 35%
  - Neither agree nor disagree: 19%
  - Disagree: 5%
WASHINGTON STATE NEEDS TO FIND AN ALTERNATIVE TO THE GAS TAX TO ADEQUATELY FUND OUR TRANSPORTATION INFRASTRUCTURE

Survey 1 (n=1,678)
- Strongly agree: 37% (622)
- Somewhat agree: 30% (509)
- Neither agree nor disagree: 22% (366)
- Somewhat disagree: 7% (112)
- Strongly disagree: 4% (69)

Survey 3 (n=1,497)
- Strongly agree: 35% (523)
- Somewhat agree: 33% (499)
- Neither agree nor disagree: 21% (308)
- Somewhat disagree: 7% (102)
- Strongly disagree: 4% (65)
HOW DO YOU FEEL ABOUT IMPLEMENTING A RUC AS A REPLACEMENT TO THE GAS TAX TO FUND TRANSPORTATION INFRASTRUCTURE?

Survey 1 (n=1,683)
- Strongly support: 21.3%
- Somewhat support: 29.2%
- Somewhat oppose: 9.1%
- Strongly oppose: 8.2%
- Not sure/need more information: 32.4%

Survey 3 (n=1,468)
- Strongly support: 37.9%
- Somewhat support: 33.7%
- Somewhat oppose: 8.4%
- Strongly oppose: 12.9%
- Not sure/need more information: 7.1%
BASED ON YOUR EXPERIENCE IN THE PILOT, HOW HAS YOUR ATTITUDE TOWARDS A RUC SYSTEM CHANGED?

- Much more supportive: 24%
- A little more supportive: 24%
- Same as before my RUC experience: 36%
- A little less supportive: 7%
- A lot less supportive: 9%
WHICH OF THE FOLLOWING BEST REPRESENTS YOUR ADVICE TO ELECTED OFFICIALS AS THEY CONSIDER THE NEXT STEPS IN IMPLEMENTING A RUC SYSTEM STATEWIDE:

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move forward now to implement a RUC system in place of the gas tax as soon as the program can be made ready</td>
<td>28%</td>
<td>423</td>
</tr>
<tr>
<td>Gradually phase in a RUC system over a five to ten year period so that it eventually replaces the gas tax</td>
<td>33%</td>
<td>493</td>
</tr>
<tr>
<td>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</td>
<td>19%</td>
<td>284</td>
</tr>
<tr>
<td>Apply a RUC system only to all-electric vehicles that are paying no gas tax</td>
<td>9%</td>
<td>139</td>
</tr>
<tr>
<td>Take no further action on starting a RUC system for the foreseeable future</td>
<td>10%</td>
<td>152</td>
</tr>
</tbody>
</table>
### HOW IMPORTANT TO YOU ARE THE FOLLOWING PRINCIPLES FOR A POTENTIAL RUC SYSTEM:

<table>
<thead>
<tr>
<th>Principle</th>
<th>Very important</th>
<th>Important</th>
<th>Fairly important</th>
<th>Slightly important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>89%</td>
<td>3%</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplicity</td>
<td>78%</td>
<td>5%</td>
<td>15%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Data security</td>
<td>75%</td>
<td>7%</td>
<td>16%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>70%</td>
<td>8%</td>
<td>21%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>65%</td>
<td>11%</td>
<td>19%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>61%</td>
<td>10%</td>
<td>15%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Enforcement</td>
<td>58%</td>
<td>12%</td>
<td>24%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>User options</td>
<td>52%</td>
<td>13%</td>
<td>28%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Charging out of state drivers</td>
<td>39%</td>
<td>16%</td>
<td>23%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>
WHICH TRANSPORTATION FUNDING APPROACH DO YOU THINK IS MORE FAIR?

Survey 1
n=1,166

- 64%: A road usage charge where you pay by the mile
- 19%: A gas tax where you pay by the gallon of gas
- 12%: A RUC and a gas tax are equally fair
- 6%: Neither the gas tax nor the RUC is fair

Survey 3
n=1,491

- 61%: A road usage charge where you pay by the mile
- 16%: A gas tax where you pay by the gallon of gas
- 14%: A RUC and a gas tax are equally fair
- 8%: Neither the gas tax nor the RUC is fair
FAIRNESS ASIDE, KNOWING WHAT YOU KNOW TODAY, WHICH METHOD TO FUND TRANSPORTATION WOULD YOU PREFER?

Survey 1
n=1,670
43% 9% 17% 6% 26%

Survey 3
n=1,482
53% 15% 19% 6% 8%

- A road usage charge where you pay by the mile
- Equally prefer a RUC or gas tax
- A gas tax where you pay by the gallon of gas
- Don’t prefer either a gas tax or RUC
- Not sure/need more information (please specify)
To stay looped in on our progress visit:

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