GAS TAX GETTING OUT OF GAS?

WASHINGTON STATE ROAD USAGE CHARGE Pilot Project
Problem
• Future funding gap

Potential solution
• Road usage charge

Key Findings
• What we have learned from our research to date

Pilot project
• Help us design a solution
PROBLEM

Gas tax won’t fund future needs
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.

GAS TAX BREAKDOWN

49.4¢

PER-GALLON
STATE FUEL TAX

- 9.5¢
  261 Transportation Partnership projects*

- 5¢
  160 Nickel projects

= 8¢

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

11.9¢

Connecting Washington**

11¢

Cities and counties local roads

4¢

Pay off bonds funded by pre-2003 fuel tax

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** 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 2027, 70% OF STATE GAS TAX REVENUES WILL GO TO DEBT SERVICE PAYMENTS*

*Based on Net Fuel Tax Revenue and Debt Service projections per the Nov 2016 Forecast.
- Debt service only includes debt first payable by the fuel tax. This excludes SR 520 corridor debt service (first payable by tolls), but includes Tacoma Narrows Bridge debt service (reimbursed by tolls).
- WA state’s portion of fuel tax revenue does not include all fuel tax revenue pledged for debt service. For example, revenue distributed to cities and counties is also pledged for debt service, and beginning in FY 2019, revenue from select vehicle fees (for selected projects).
THE FUEL EFFICIENCY BAR CONTINUES TO RISE

• Current federal CAFE Standards: **54.5 MPG by 2025**
• Washington state’s current average: **20.5 MPG**
• The Federal Energy Information Administration conservatively predicts:
  • All **NEW** cars by 2040 = **48 MPG**
  • All cars (new and old) by 2040 = **37 MPG**
AUTO MANUFACTURERS SET THE PACE

• Volvo plans to produce only hybrid and electric cars starting in 2019
• Toyota 2017 Mirai - powered by hydrogen fuel cell with an EPA rated 312-mile range. Plans to shift to hydrogen fuel cell fleet in the next 15+ years
• Ford is investing $4.5 B to transition to hydrogen fuel cell and other alternative fuels over the next 15+ years
• Nearly 400,000 people put down a $1,000 deposit for Tesla’s all electric Model 3
GAS TAX REVENUES DECLINE WITH VEHICLE FUEL EFFICIENCY

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 (RUC)
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.

Similar to how we pay for utilities, such as electricity or water.

Identified as a viable future funding source in need of further exploration.
Washington is not alone:

• 14 western states are involved in research, testing, or legislatively enacted programs

• Remaining task: let the public (volunteer participants) “test drive” RUC through a live pilot test

• On August 28, 2016, FHWA awarded Washington a $3.847 million grant to prepare for a live pilot test

Source: RUC West
ROAD USAGE CHARGE ASSESSMENT

Since 2012, the Washington State Transportation Commission has led this work with a 25-member steering committee comprised of diverse stakeholders

**Three 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
- Consumer/Public
- WSDOT
- Department of Licensing
- Motoring public
- Business
- User fee technology
- Treasurer’s Office
Identify a sustainable, long-term revenue source for Washington State’s transportation system, and transition from the current gas tax.

- Ensure there is consumer choice on how mileage information can be collected and paid for
- During the transition period of moving from the gas tax to a road usage charge, drivers would pay one or the other, but never both
- For purposes of assessing the gas tax against a road usage charge, we have assumed revenue neutrality and focused on net revenue potential for both
FOUR OPTIONS FOR YOU TO TEST AND PROVIDE FEEDBACK

1. Mileage Permit: Pre-select a block of miles you anticipate using in three-month increments.
2. Odometer Readings: Miles reported quarterly, either electronically or in person.
3. Plug and Play: Automated mileage meter with GPS and non-GPS options, plugged into your car’s OBD-II port.
4. Smartphone App: Record your miles using your smartphone.

1: No-tech  2: Low-tech  3: Higher-tech  4: High-tech
NEW TECHNOLOGIES ENHANCE PRIVACY AND INCREASE CONVENIENCE

Emerging technologies show potential for reliably and easily collecting mileage data while protecting drivers’ privacy.

- Mobile phone app-based solutions are emerging – works for every vehicle
- Rely on consumers’ own mobile phone and vehicle odometer
- VIN and odometer photo captured and transmitted with driver’s phone
- Data is extracted and validated using photo recognition technology, algorithms, and databases
- System can detect fraud
SMARTPHONE INNOVATION CHALLENGE

Can IT engineers, software developers and designers create a prototype solution (software or device) for mileage reporting by smartphone?

- Allows drivers to use their own smartphone to record and report mileage
- Allows drivers to decide whether or when to enable location-based services (GPS)

CoMotion (UW organization that matches private industry with public research) helped support four research teams from the following departments:
APPS AT A GLANCE

UW information school (ischool) team:  https://youtu.be/Z49JwJyzac0
• Developed an iOS app: WARUC, now available in Apple’s App Store
• Simple, “no-look” swipe on the smartphone screen to activate or deactivate mileage recording

UW electrical engineering department team:
• Toggle on/off location-based (GPS) mileage recording, to ensure out-of-state miles are deducted from a drivers’ RUC account
• Border Proximity Detection, where an audible sound reminds drivers to activate the out-of-state mileage deduction feature as the vehicle approaches a state border
UW human centered design engineering (two teams):

**Team 1:** [https://youtu.be/0asXElGH8G8](https://youtu.be/0asXElGH8G8)
- Focused on smartphone app design that appeals to the average driver
- Clever “explainer video” to help drivers learn the primary reason for RUC, and how the smartphone app is used

**Team 2:** [https://youtu.be/OKMhZurVVe4](https://youtu.be/OKMhZurVVe4)
- Drivers can choose to categorize their trips to self-analyze (and economize) their driving habits
- Drivers can quickly and easily “Contest this Trip” through a drop-down menu, requesting their RUC account manager fix any incorrect mileage
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

At 20.5 MPG, the average Washington driver pays 2.4 cents/mile in state fuel tax.

Vehicles below average MPG pay more fuel tax per mile driven.

Vehicles above average MPG pay less fuel tax per mile driven.
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.

- This would not address growing needs for improvements or maintenance – it would keep funding at status quo levels.
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 $109 dollars per month less than the Ford pickup truck driver.
OUT OF STATE DRIVERS

Need to be able to charge people from out of state for use of roads.

- Keep the gas tax in place as a parallel system to the road usage charge
- Drivers will pay either the gas tax or the road usage charge – but not both

To distinguish between travel on Washington public roads and other roads (e.g., outside the state and private roads), location based technology will likely be needed.
PILOT PROJECT

Inform design of a fair-share approach
STATEWIDE PILOT TEST, WITH RECRUITING FOCUSED IN 5 REGIONS

Up to 2,000 vehicles from anywhere in Washington may participate

- Outreach efforts and participant support will be focused in five regions, to ensure geographic diversity in the Washington pilot test
- A small pool of participants from Surrey, BC will test the international border crossing
- A small pool from Vancouver, WA who commute into Portland, OR will test interoperability between the two states
- Four payment options will be tested from no-tech to high-tech
PILOT PROJECT TIMELINE

2017

Spring/Summer

Pilot project final development
- Pilot project setup
- Baseline public attitude assessment and information gathering
- Broad awareness-building

Fall

Participant recruitment
- Pilot system testing
- Recruitment of volunteers
- Outreach to general public continues

Winter

Participant selection
- Final participants selected
- Set up participant accounts

2018

Winter

Pilot test launch
- Pilot test launches in early 2018
RECRUITING PARTICIPANTS

Unique opportunity to shape future funding options
  • Help us explore what works and what doesn’t

Need up to 2,000 volunteers throughout Washington – no cost to participate

You can help by:
  • Signing up to participate
  • Encouraging your friends and neighbors to sign up
Sign up today!
Be a part of shaping our state’s future.

www.waroadusagecharge.org

Questions? info@waroadusagecharge.org
Want to talk? (833) WASH-RUC
Paul Parker, Deputy Director
Washington State Transportation Commission
parkerp@wstc.wa.gov
360-705-7070

Consultant support provided by: