

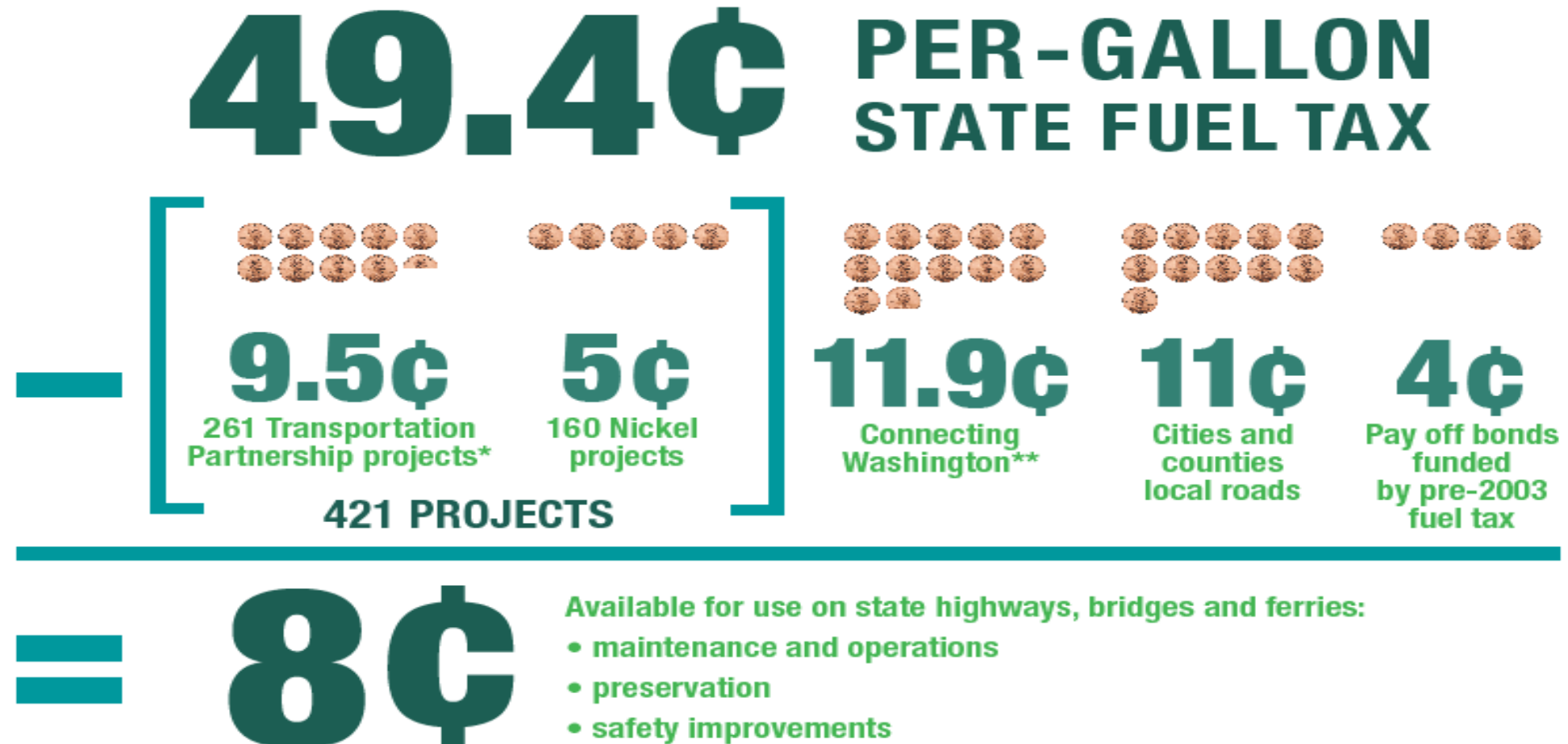


WASHINGTON STATE ROAD USAGE CHARGE ASSESSMENT

PROBLEM

Gas tax won't fund future needs

WASHINGTON STATE GAS TAX BREAKDOWN



* 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.

PLUG-IN ELECTRIC VEHICLES ARE ON THEIR WAY

CROSSOVER POINT: WHEN PEVS BECOME CHEAPER THAN ICE (GAS) VEHICLES

2017 Bloomberg Forecast:
crossover point will be 2026

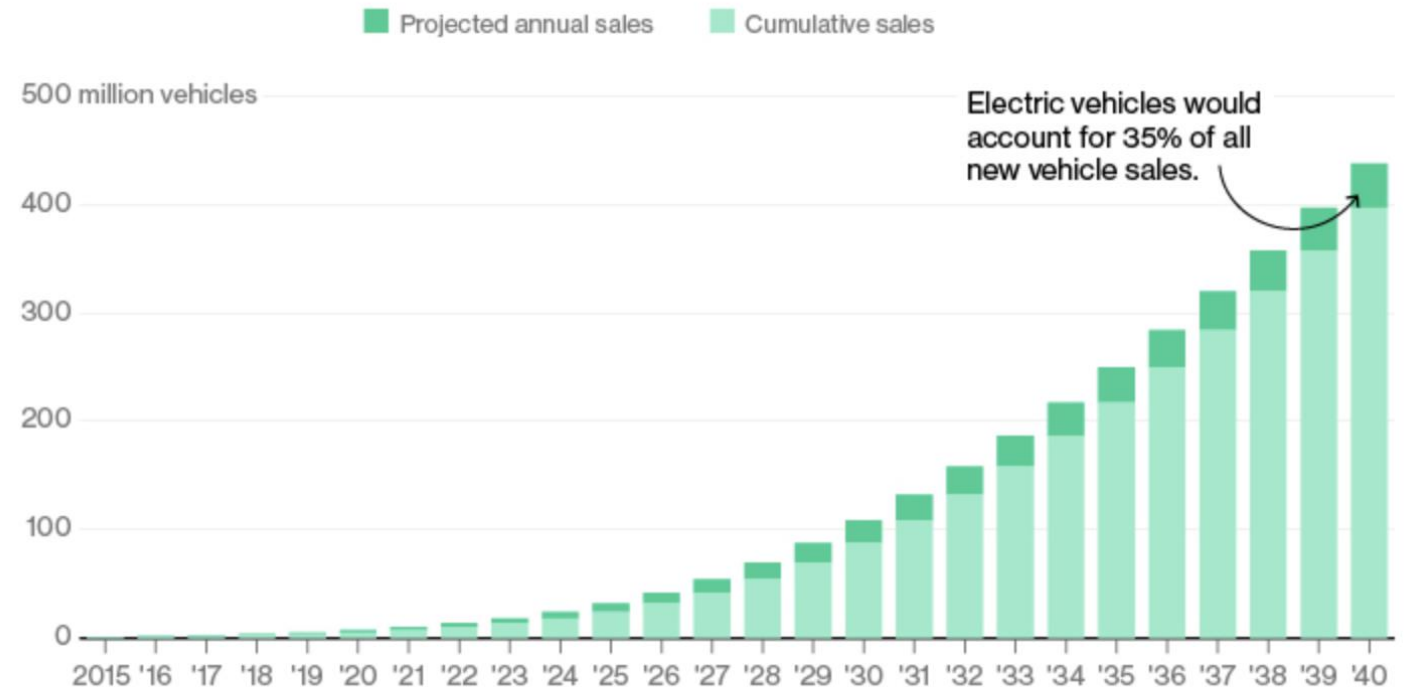
2018 Bloomberg Forecast:
crossover point will be **2024**

2019 Bloomberg Forecast:
crossover point will be **2022**

2020 Bloomberg Forecast:
Crossover point will be **2022**

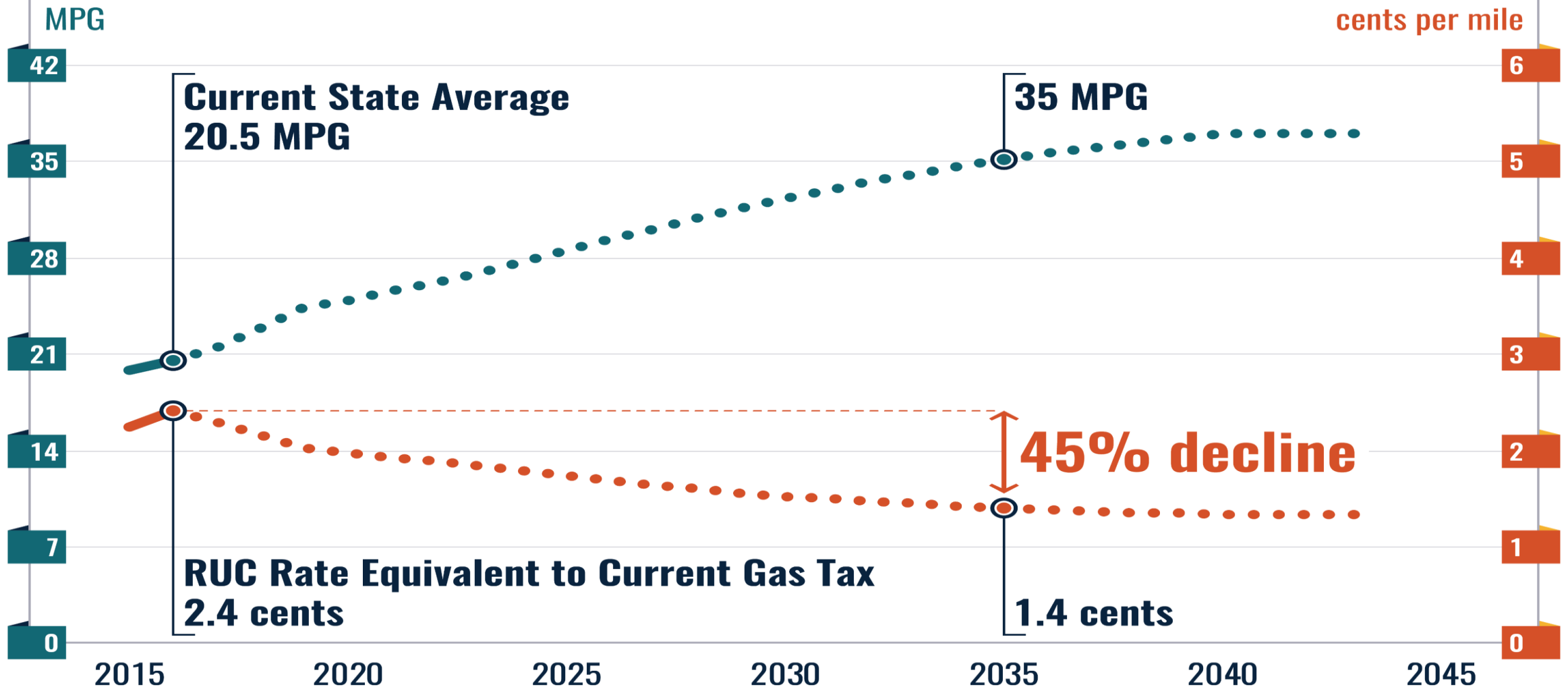
The Rise of Electric Cars

By 2022 electric vehicles will cost the same as their internal-combustion counterparts. That's the point of liftoff for sales.



Sources: Data compiled by Bloomberg New Energy Finance, Marklines

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



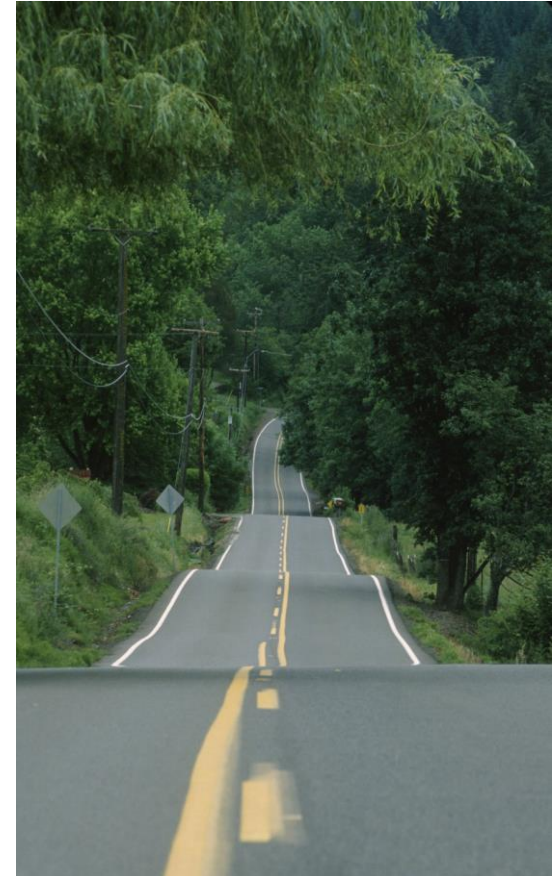
Road Usage Charge Research & Pilot Project

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:

- Established a Steering Committee made up of stakeholders and legislators to guide the work over the seven-year period of research
- 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
- Focus on light-duty vehicles only




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




ODOMETER READING

- Post-pay for miles reported quarterly
- Report miles either electronically or in person




MILEMAPPER SMARTPHONE APP

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



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



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

LOW-TECH

HIGH-TECH

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

KEY FINDINGS OF THE RUC ASSESSMENT

RUC HARMONIZES EXISTING POLICIES

Policy conflicts exist today:

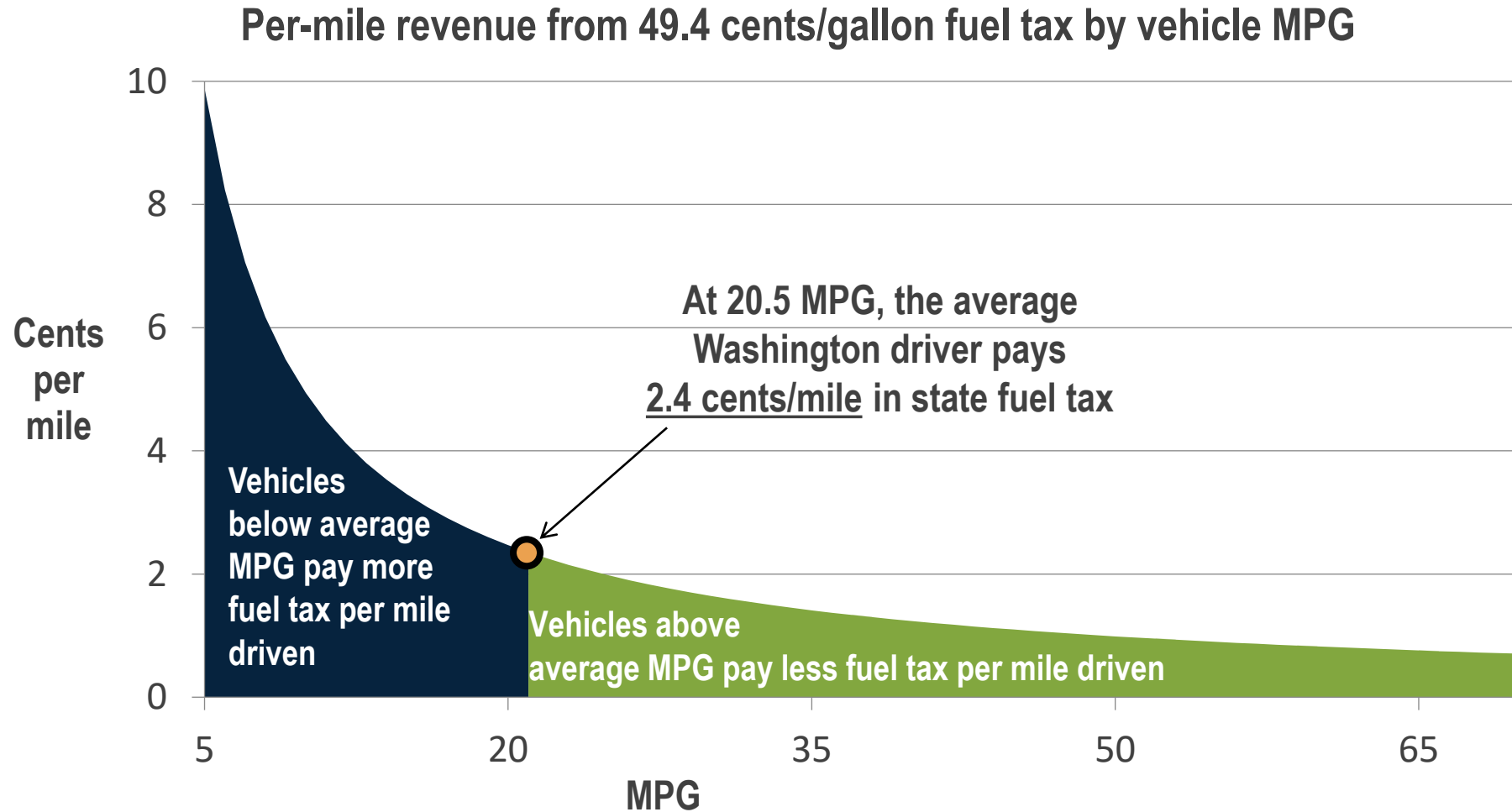
The state relies on fossil fuel consumption to maintain and improve state roads and bridges – while state law sets forth goals that would reduce fossil fuel consumption. This forces a false policy choice: better roads, or better environment?

RUC presents an opportunity to harmonize revenue, environmental, and other state policy objectives:

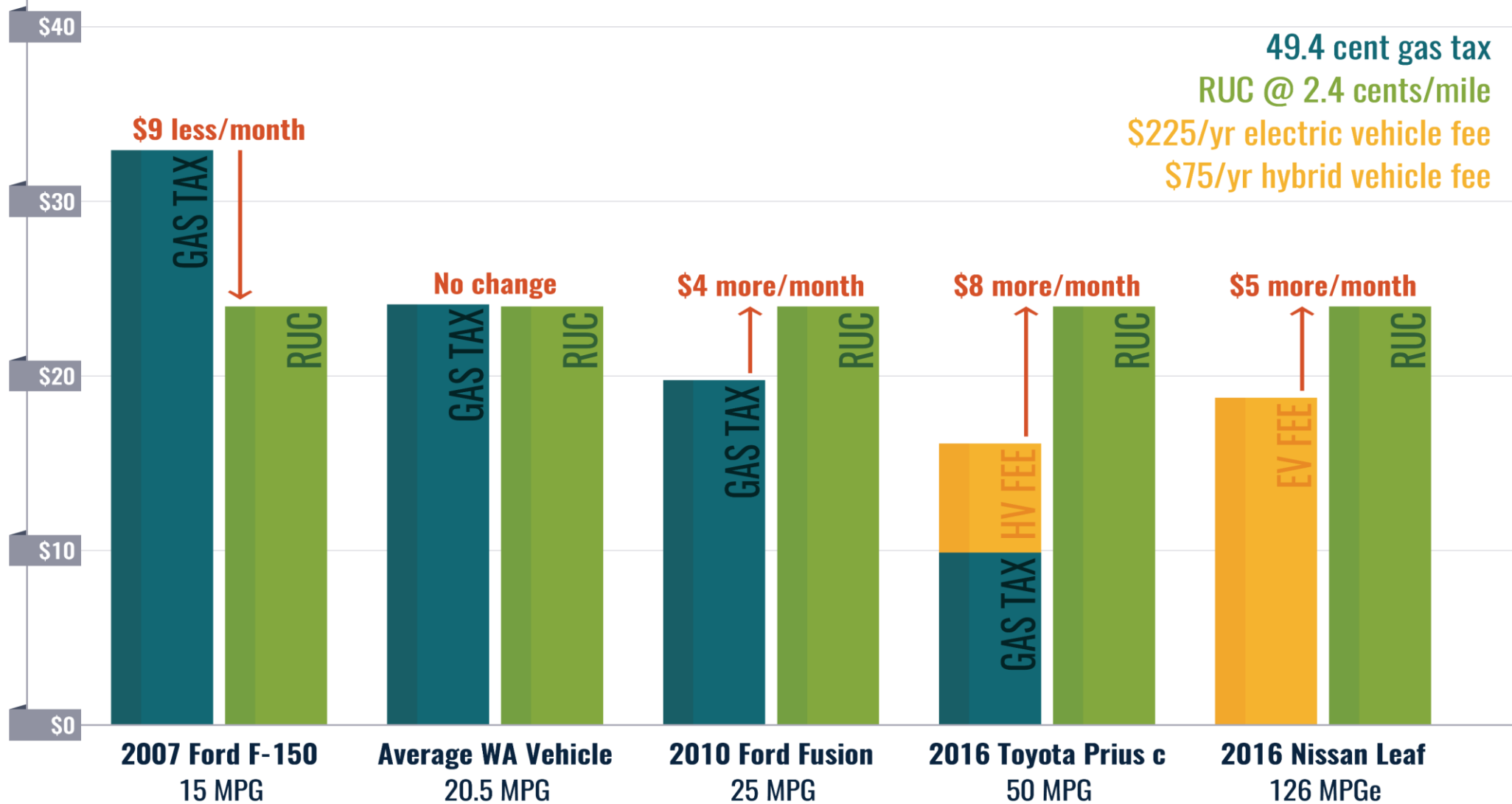
- RUC can reduce barriers to adoption of electric vehicles through rate setting. For example, annual flat EV fee (\$225) and hybrid fee (\$75) could be waived for those paying RUC.
- RUC can advance fairness because drivers pay for what they use, rather than paying for what they own (through flat vehicle registration fees, which do not adjust for usage), or through fuel taxes, which cannot be adjusted for ability to pay or ability to afford newer, cleaner vehicles.
- RUC can provide reliable long-term funding by removing budgetary reliance on fossil fuel consumption while preserving the user-pay principle that the fuel tax embodied for the past century.



TAXING GALLONS HAS REAL FAIRNESS AND EQUITY CHALLENGES



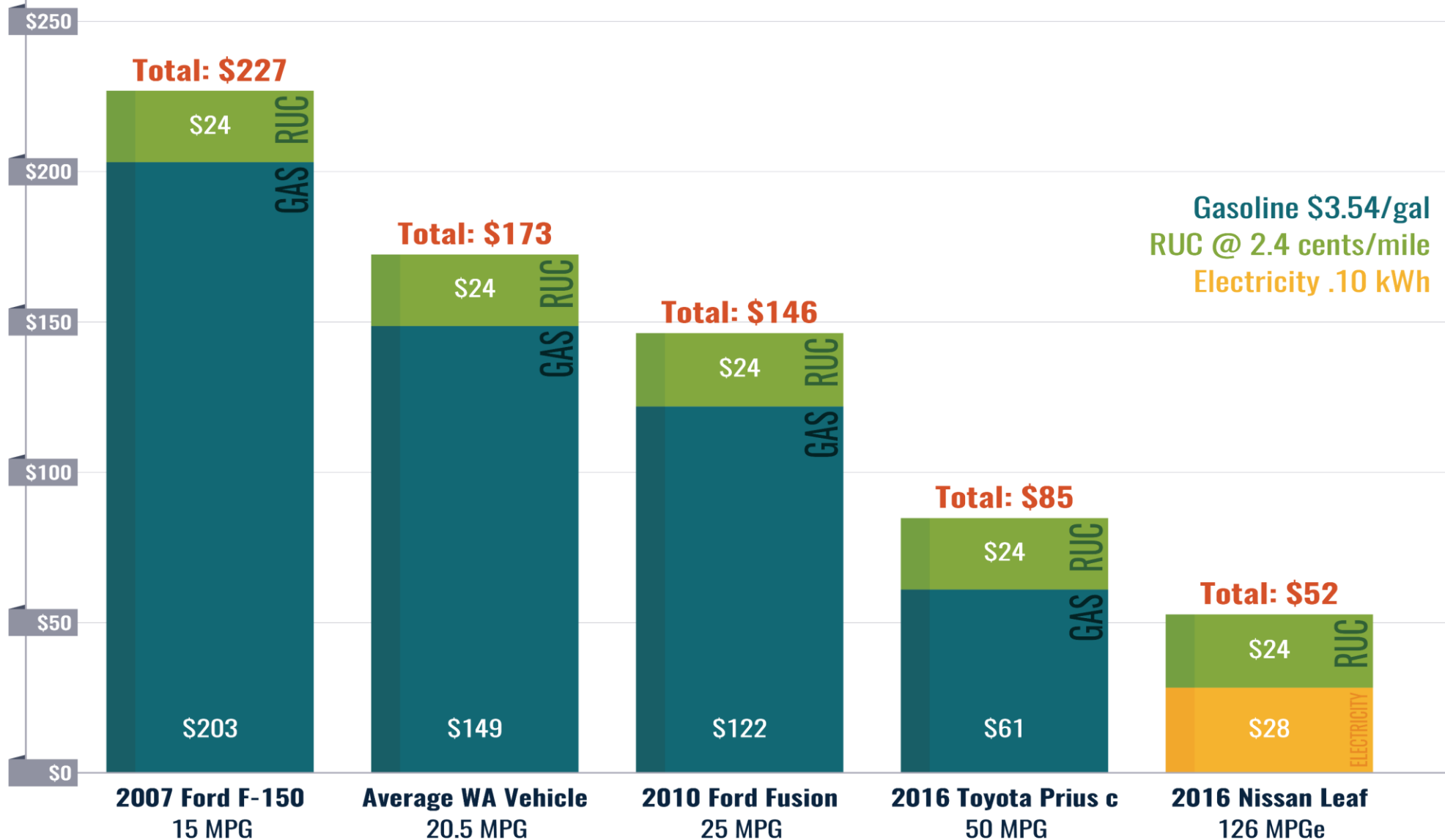
COST OF GAS TAX OR ROAD USAGE CHARGE (RUC) AT 1,000 MILES/MONTH



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

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.

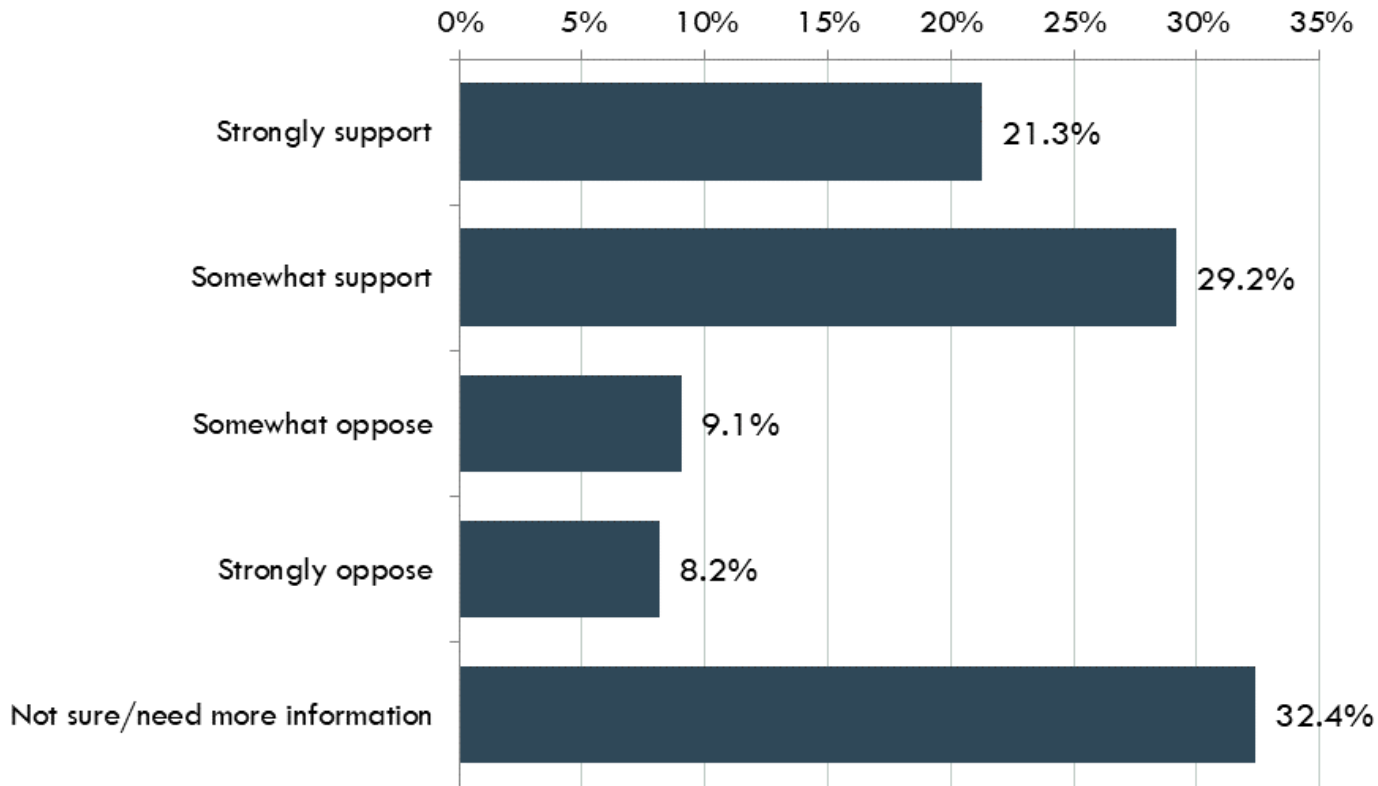
RUC PILOT PARTICIPANT INPUT



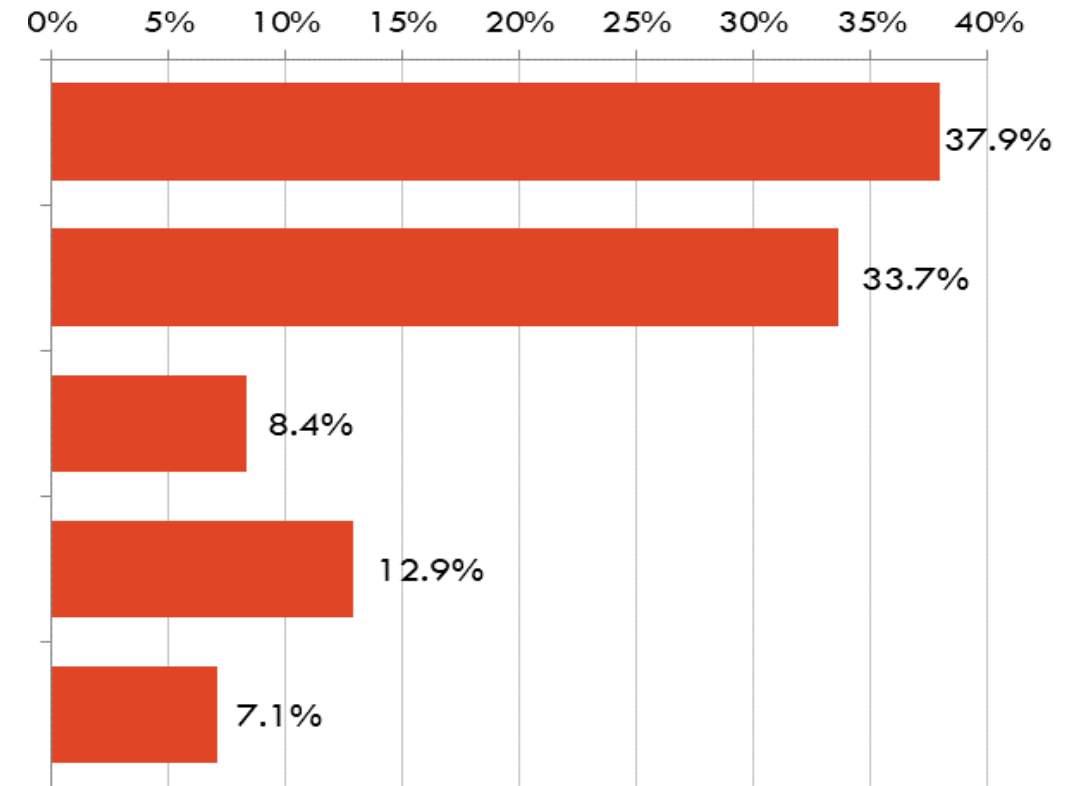
Three Surveys, 12 months

HOW DO YOU FEEL ABOUT IMPLEMENTING A RUC AS A REPLACEMENT TO THE GAS TAX TO FUND TRANSPORTATION INFRASTRUCTURE?

Survey 1 (n=1,683)



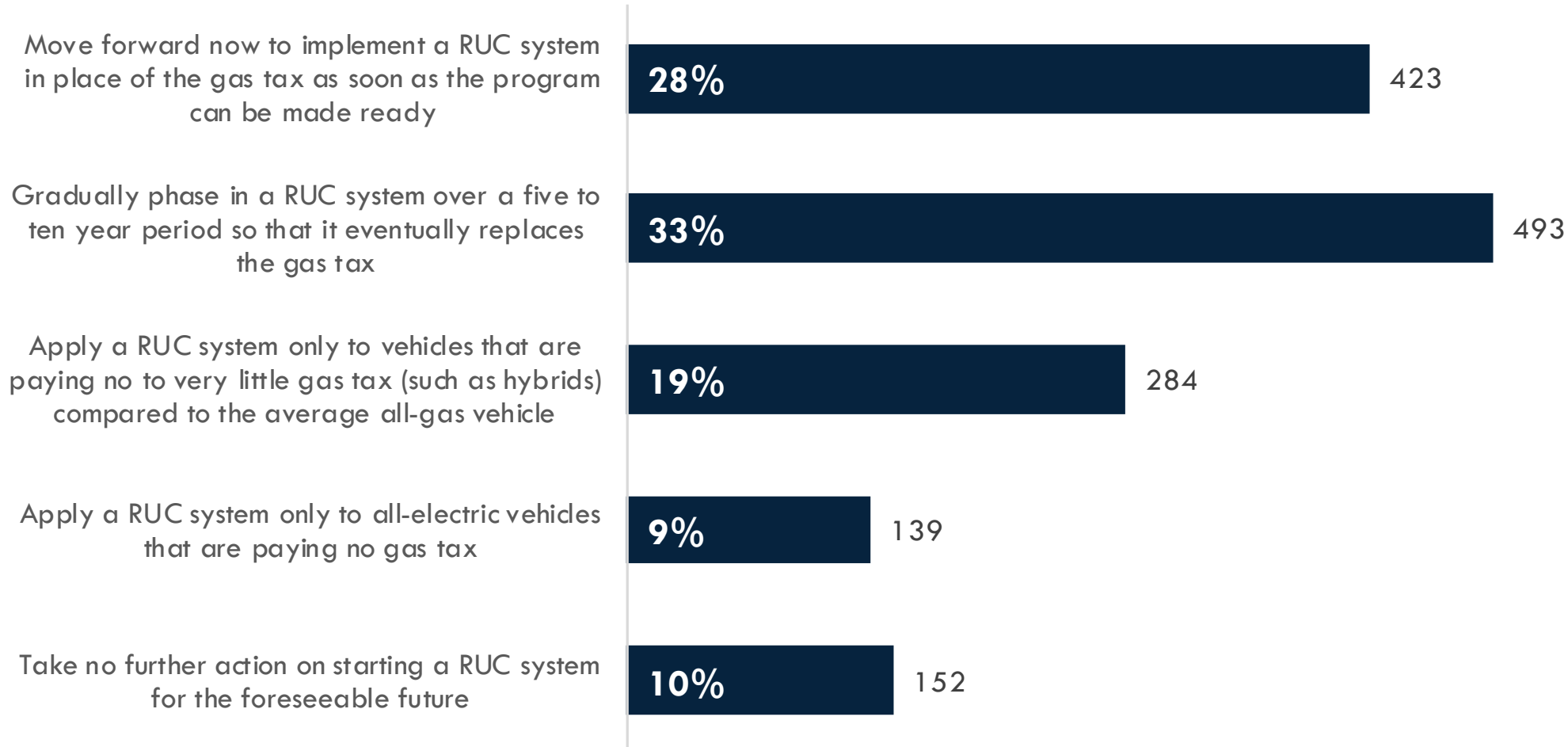
Survey 3 (n=1,468)



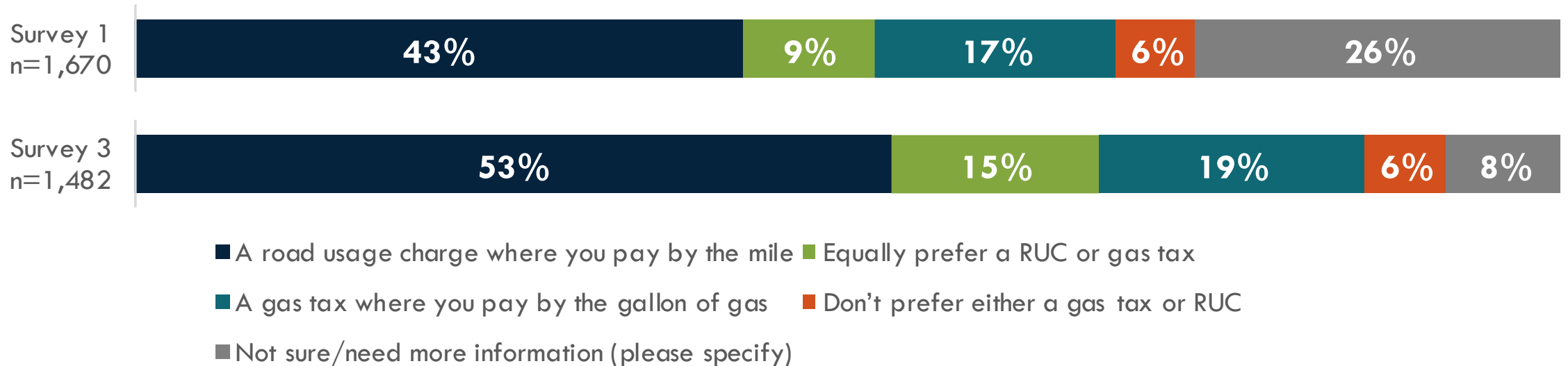
BASED ON YOUR EXPERIENCE IN THE PILOT, HOW HAS YOUR ATTITUDE TOWARDS A RUC SYSTEM CHANGED?



WHICH OF THE FOLLOWING BEST REPRESENTS YOUR ADVICE TO ELECTED OFFICIALS AS THEY CONSIDER THE NEXT STEPS IN IMPLEMENTING A RUC SYSTEM STATEWIDE:



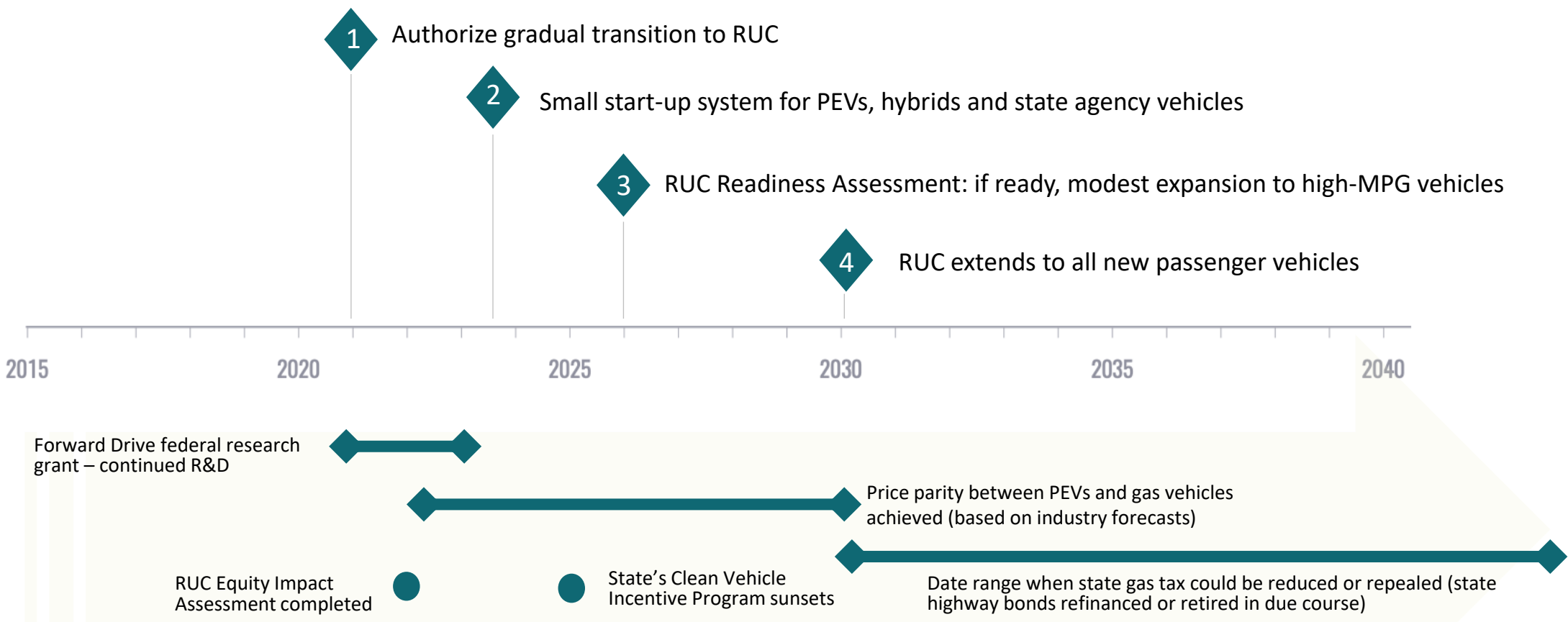
KNOWING WHAT YOU KNOW TODAY, WHICH METHOD TO FUND TRANSPORTATION WOULD YOU PREFER?



WSTC RECOMMENDATIONS

RUC TRANSITION: BEGIN GRADUAL TRANSITION NOW, BUT START SMALL

RUC transition milestones



Important dates, trends and forces of influence

RUC POLICIES: PRIVACY & USE OF REVENUE – PROTECT BOTH

Privacy : The Legislature should enact laws that protect personal privacy in a RUC program.

Use of Revenue: Expenditures of RUC revenue should be made subject to the 18th Amendment of the Washington State Constitution (restricted to highway purposes).

- The Legislature is encouraged to identify a dedicated, sustainable revenue source for multimodal transportation needs and public transportation.

Other Policy Recommendations:

Programs receiving funding from off-road activities should continue receiving the same share of funding during a transition period to RUC.

Consider different approaches to per-mile rates for RUC as the transition progresses (e.g., vehicle weight factors).

RUC REFINEMENTS: CONTINUED LEARNING & IMPROVEMENTS NEEDED

Before any wide-scale transition to RUC is considered:

- New approaches to privacy protection should be developed and tested during an initial start-up phase of RUC.
- Work with other states to probe RUC compliance gaps. Test compliance and enforcement during an initial RUC start-up phase.
- Border-area testing of RUC must be conducted, including exploring solutions for frequent Washington-Oregon travelers.
- During an initial start-up phase, develop and deploy techniques to reduce RUC cost of collection.
- Leverage existing delivery mechanisms – including public-private partnerships – for cost-effective delivery of RUC services.

WSTC'S *FORWARD DRIVE* PROJECT



Forward Drive: WSTC's 2019 Federal STSFA Grant proposal (1 of 2)



1. New Mobility & RUC: create a framework for modeling the effects of EVs, A/Vs, and TNCs on a RUC system in Washington



3. Updated mileage reporting methods: incorporate latest approaches to mileage reporting into a WA RUC system: in-vehicle telematics, improved smartphone apps, pay-at-the-pump, etc.

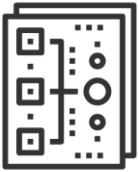


2. Equity analysis: identify and measure potential disparate impacts of RUC to communities of color, low income households and vulnerable populations



4. Administrative cost reduction "Scrum": workshops with other states to identify ways to reduce cost of collections for state RUC systems

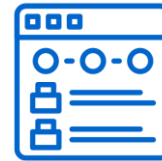
Forward Drive: WSTC's 2019 Federal STSFA Grant proposal (2 of 2)



5. Detailed phase-in plan: takes into account A/V and shared ride service impacts, equity impacts, updated mileage reporting approaches, and more

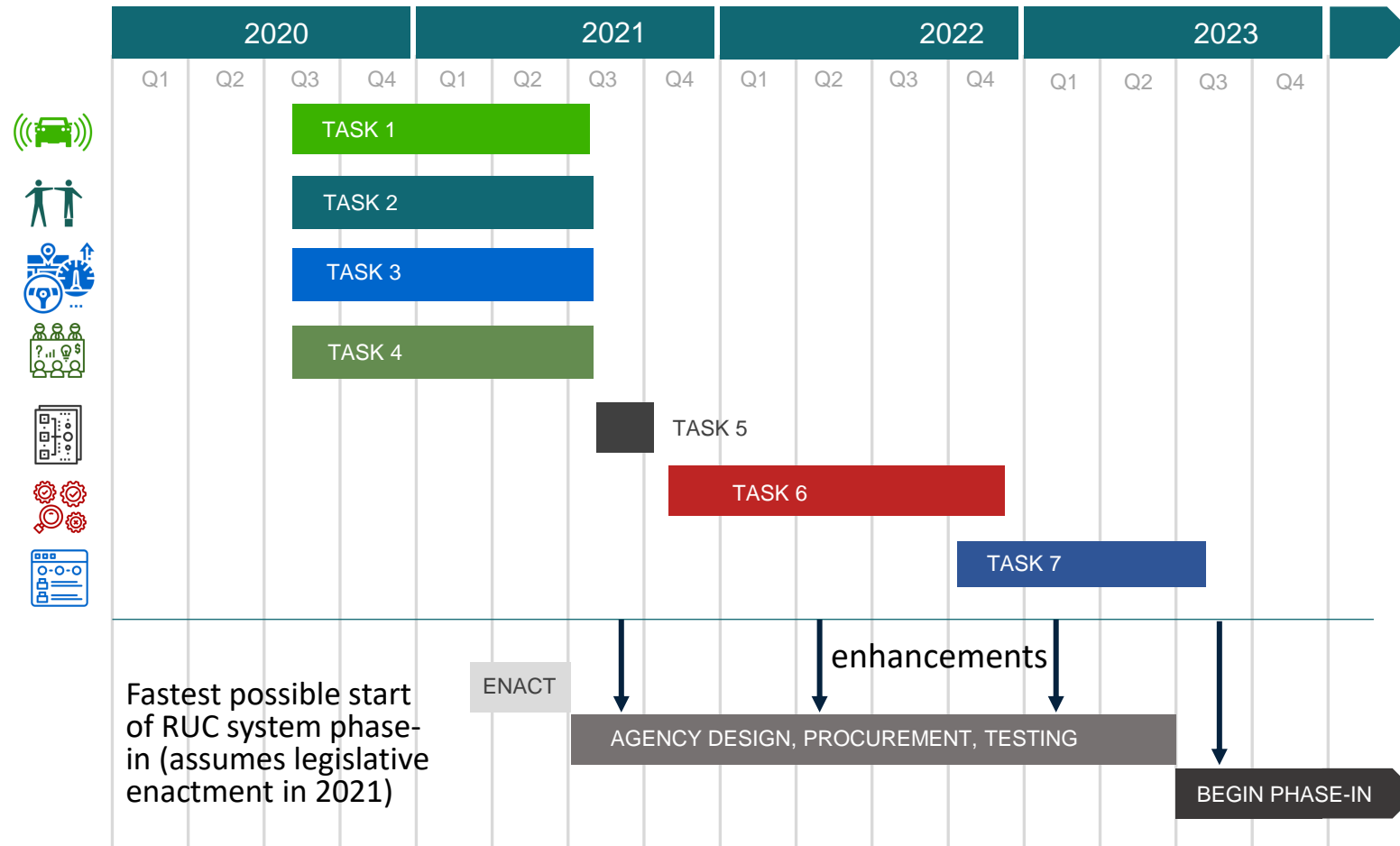


6. RUC prototype "sub-test": conduct a small-scale test of new mileage reporting methods, equity policies, collecting RUC from TNCs and shared ride vehicles, and cost reduction techniques



7. RUC Roadmap: detailing how Washington and other states can right-size a RUC policy and system to fit their circumstances (including a framework for how policy choices can be reexamined in light of increases in RUC revenue and allocations)

Research & Testing Impact on Hypothetical RUC Program Implementation





**To stay looped in on our
progress visit:**

www.waroadusagecharge.org

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