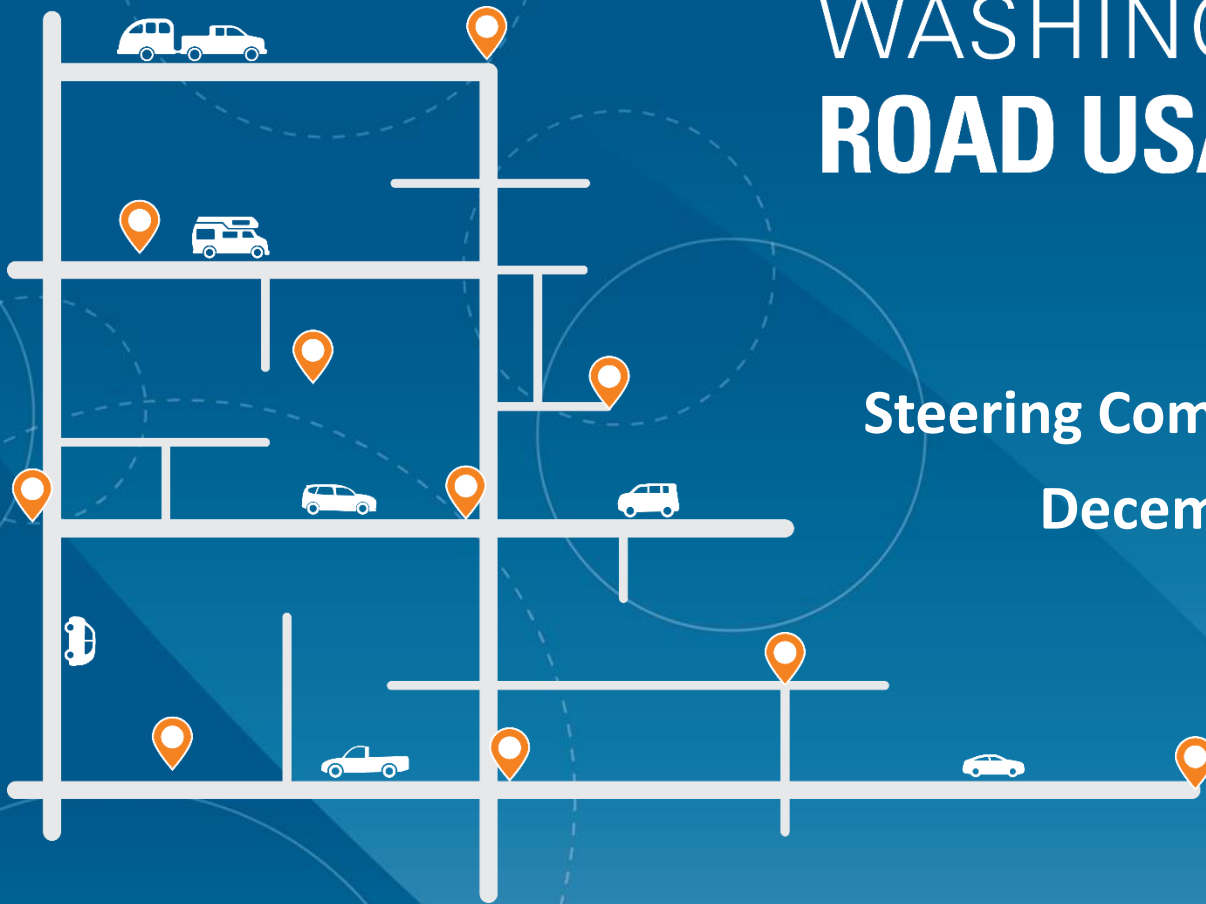


# WASHINGTON STATE ROAD USAGE CHARGE

Steering Committee Meeting #2

December 1, 2015



# Meeting Agenda

- Welcome and Introductions
- Presentation of 2015 Revised Business Case Analysis
- Federal Reauthorization Act Grant Funding for RUC Pilot Projects
- Roadmap: a Pathway to RUC in Washington
- Working Lunch: RUC Technology Showcase
- Review of RUC Demonstration Proposal
- Discussion of Steering Committee Recommendations to Legislature

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# Revised Business Case Analysis Topics

- RUC cost of collection
- Three fuel economy scenarios
  - Stuck In Traffic
  - CAFE Detroit
  - Shift Happens
- Three policy alternatives
  - Flat fuel tax
  - Indexed fuel tax
  - Transition to RUC

# RUC Assumptions

## *for analysis purposes only*

- On January 1, 2019, Model Year (MY) 2019 and newer vehicles become subject to RUC
- Fuel tax remains in place as collected today at terminal rack (upstream of retail gas stations)
  - Vehicles MY 2018 and older continue to pay fuel tax only
  - Vehicles MY 2019 and newer also continue pay fuel tax (if they use fuel), but this becomes a prepayment mechanism toward RUC, which is reconciled when RUC payments are due.
- RUC rate is 2.5 cents per mile (revenue neutral with fuel tax of 49.4 cents/gallon at 20 MPG)

# RUC Cost of Collection Components

## One-time setup costs

- IT (software and hardware) development and testing
- Business process development
- Staff training
- If using third-party vendors:
  - Procurement/acquisition
  - Certification

## Ongoing operational costs

- Account management
  - Mileage reporting
  - Transaction processing
  - Customer service
- Audit
- Enforcement
- Program management
- If using third-party vendors:
  - Vendor audit
  - Contract management

# Two approaches

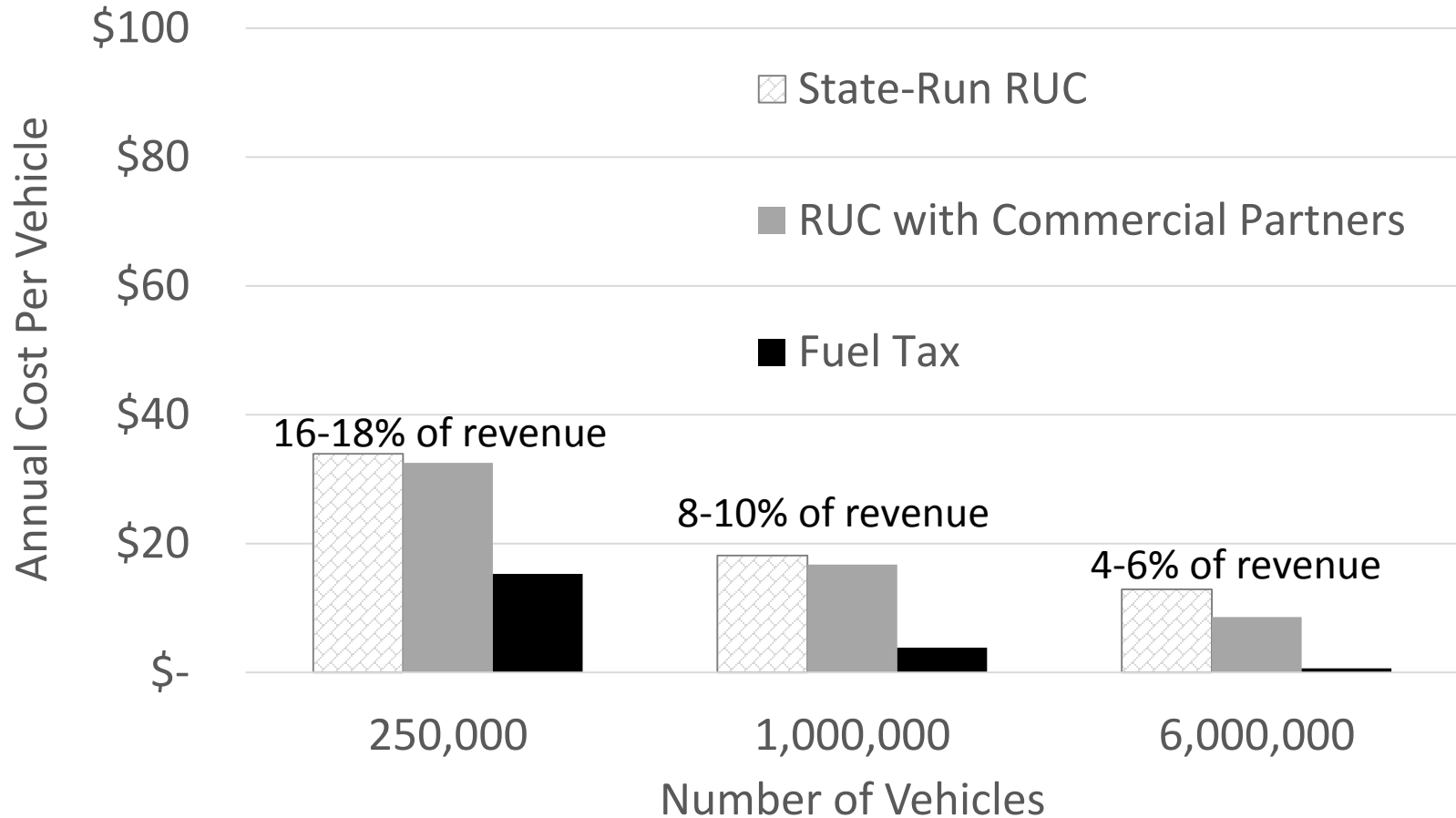
- State of Washington Account Management
- Commercial Account Management

# Potential Advantages of Commercial Partners

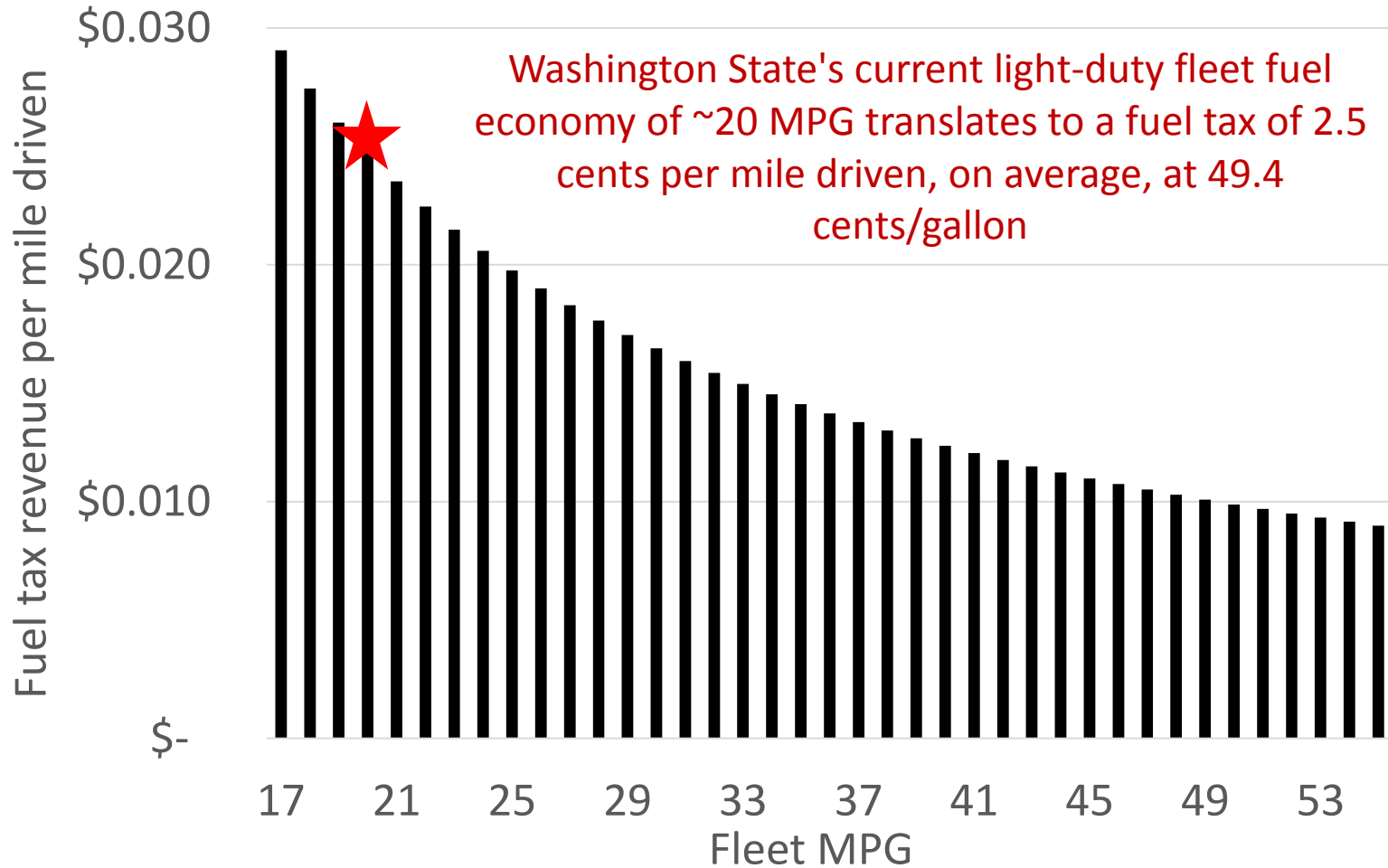
- Easier to keep pace with technology
- Competition and value-added services drive cost efficiencies and customer (taxpayer) acceptance
- Easier to interoperate and share costs with other jurisdictions
- Allows state to focus on core public functions of oversight, audit, and enforcement
- Some customers may prefer or even be required to use a state account manager



# Cost of Collection Summary



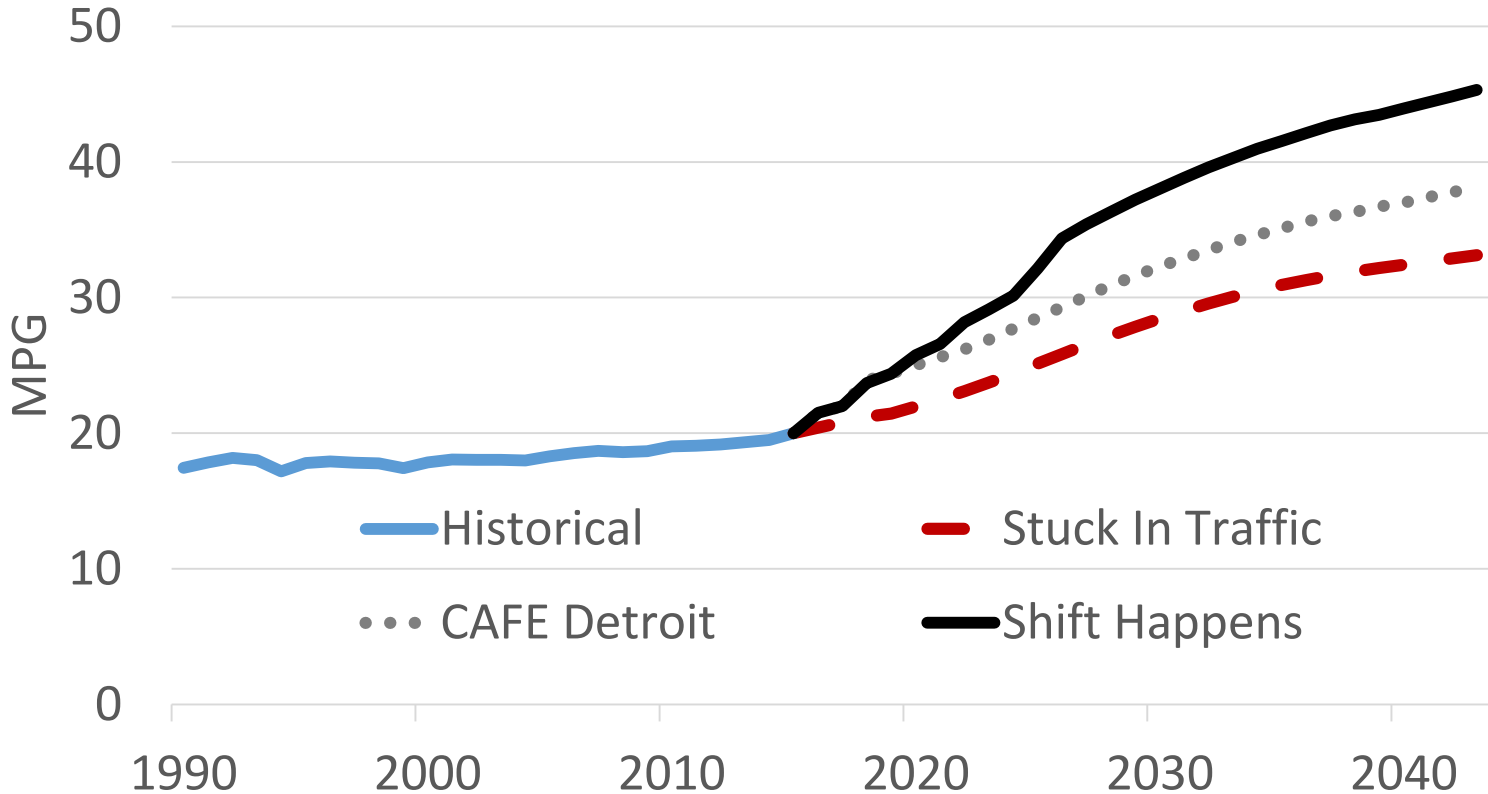
# Fuel Economy vs. Fuel Tax



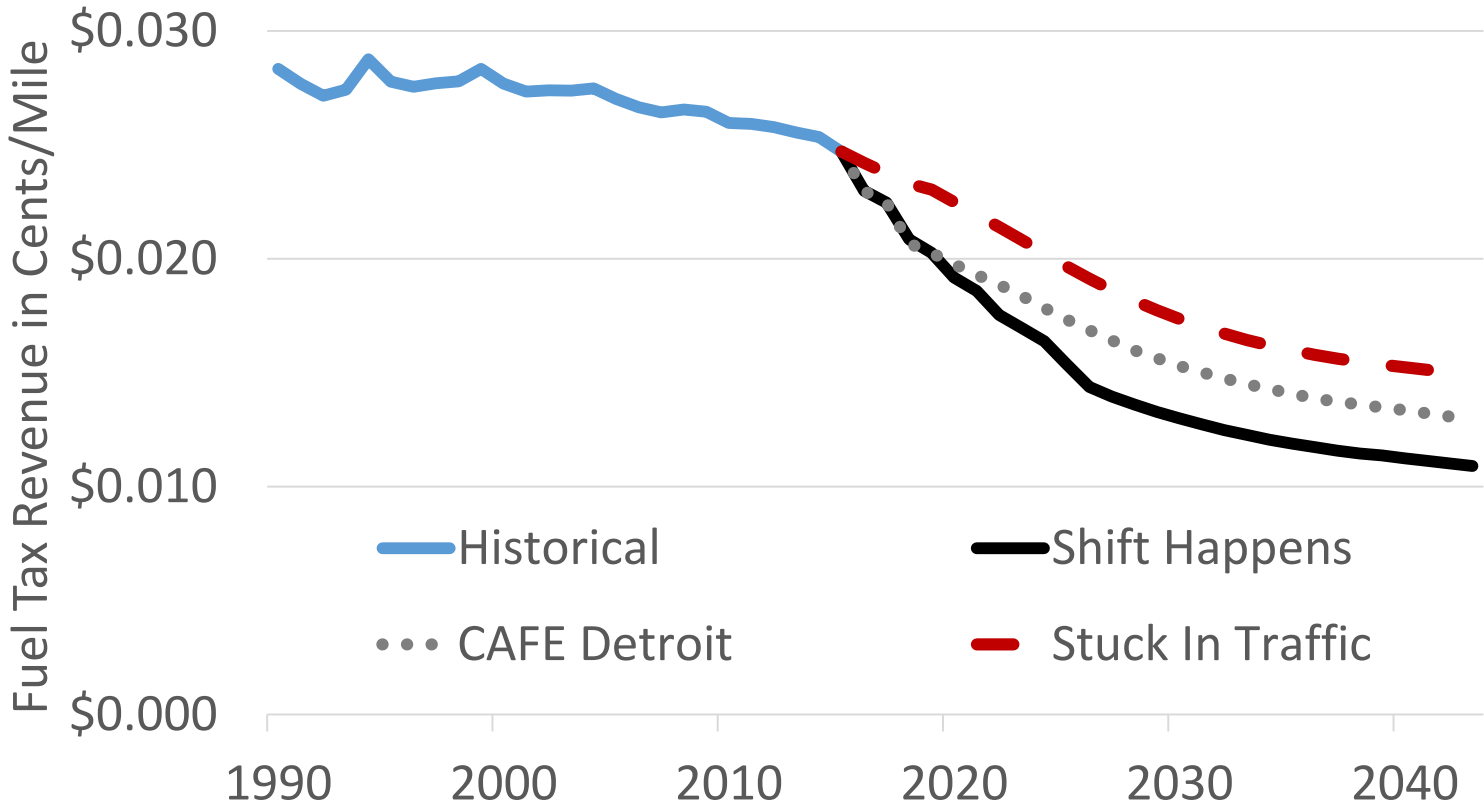
# Three Illustrative Scenarios

- **Stuck In Traffic:** MPG improves slowly due to persistent low oil prices that result in purchases of lower MPG vehicles, increased congestion leading to lower on-road MPG, and slower fleet turnover.
- **CAFE Detroit:** MPG improves in line with U.S. EIA expectations based on automaker technology improvements driven in part by automaker technology improvements in conventional engines (EVs and PHEVs are less than 2% of new sales by 2040).
- **Shift Happens:** MPG improves quickly due to faster adoption of EVs and PHEVs (20% of new sales by 2040).

# Light Vehicle Fleet MPG Scenarios



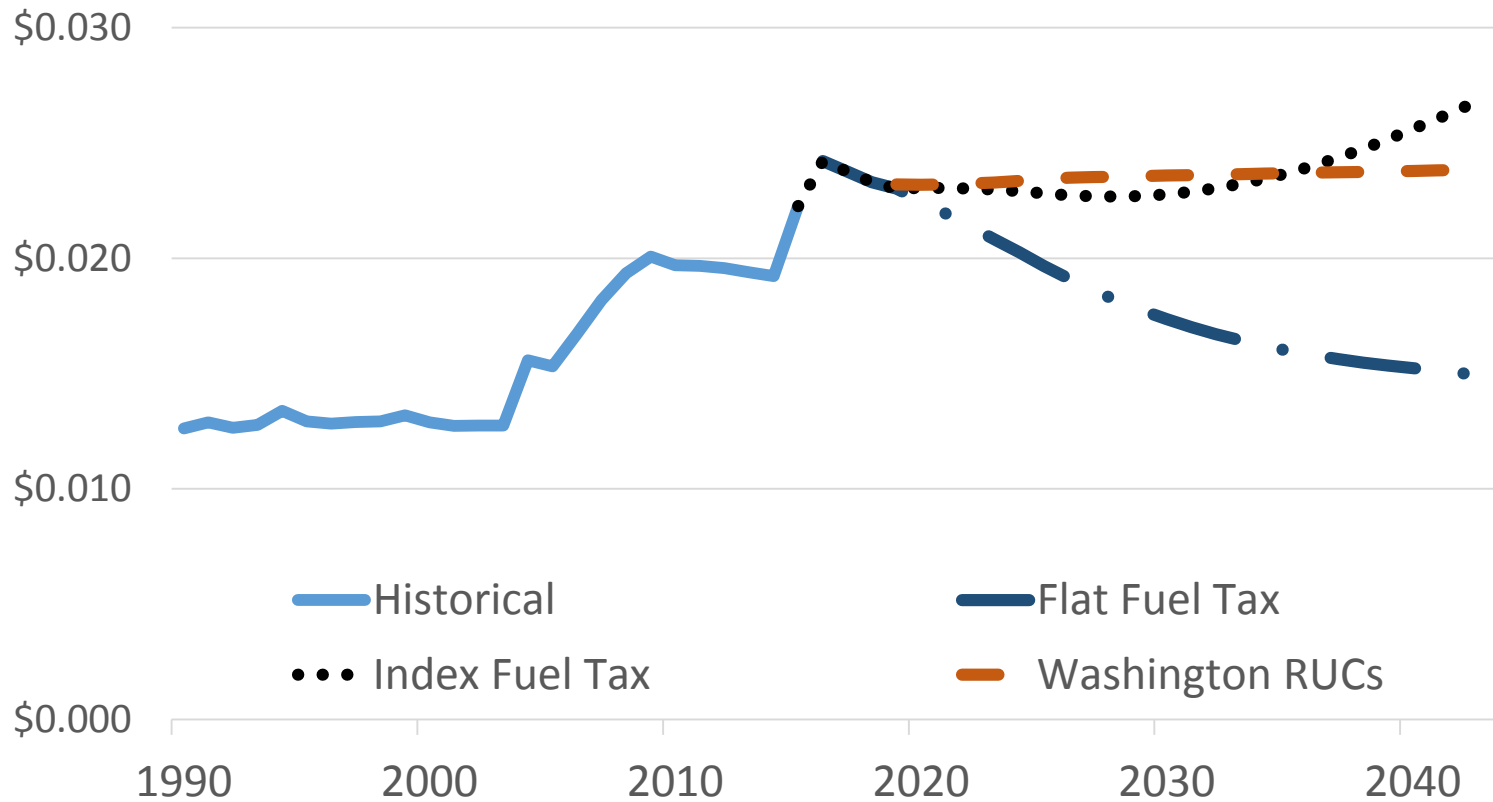
# Light Vehicle Fuel Tax Scenarios at 49.4 cents/gallon



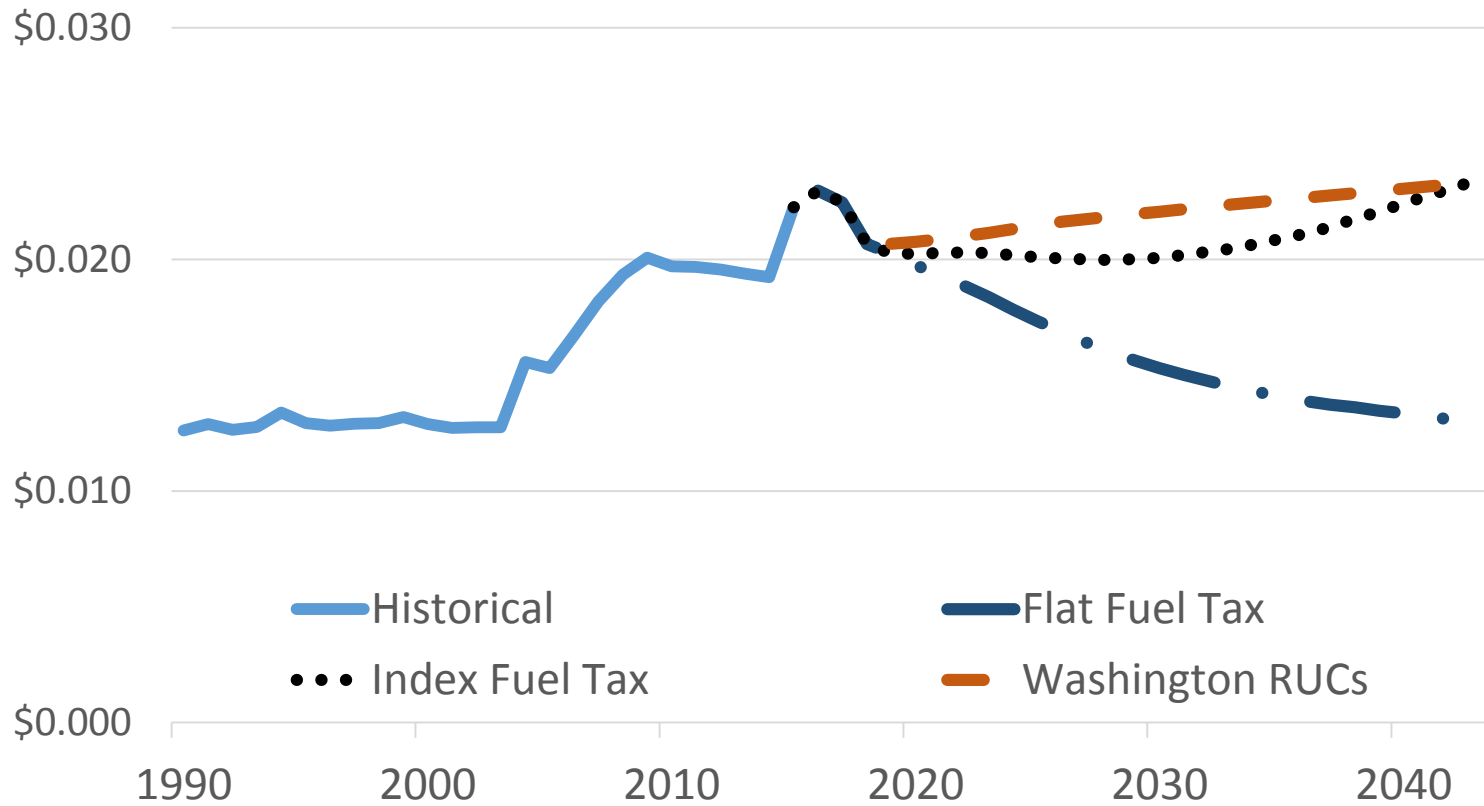
# Policy Alternatives

- Fuel tax flat at 49.4 cents/gallon
- Index fuel tax at 2.5% increase per year
  - 57 cents/gallon by 2025
  - 83 cents/gallon by 2040
- Transition to RUC at 2.5 cents/mile
  - Begins in 2019
  - Vehicles MY2018 and older continue to pay flat 49.4 cents/gallon fuel tax

# Stuck In Traffic

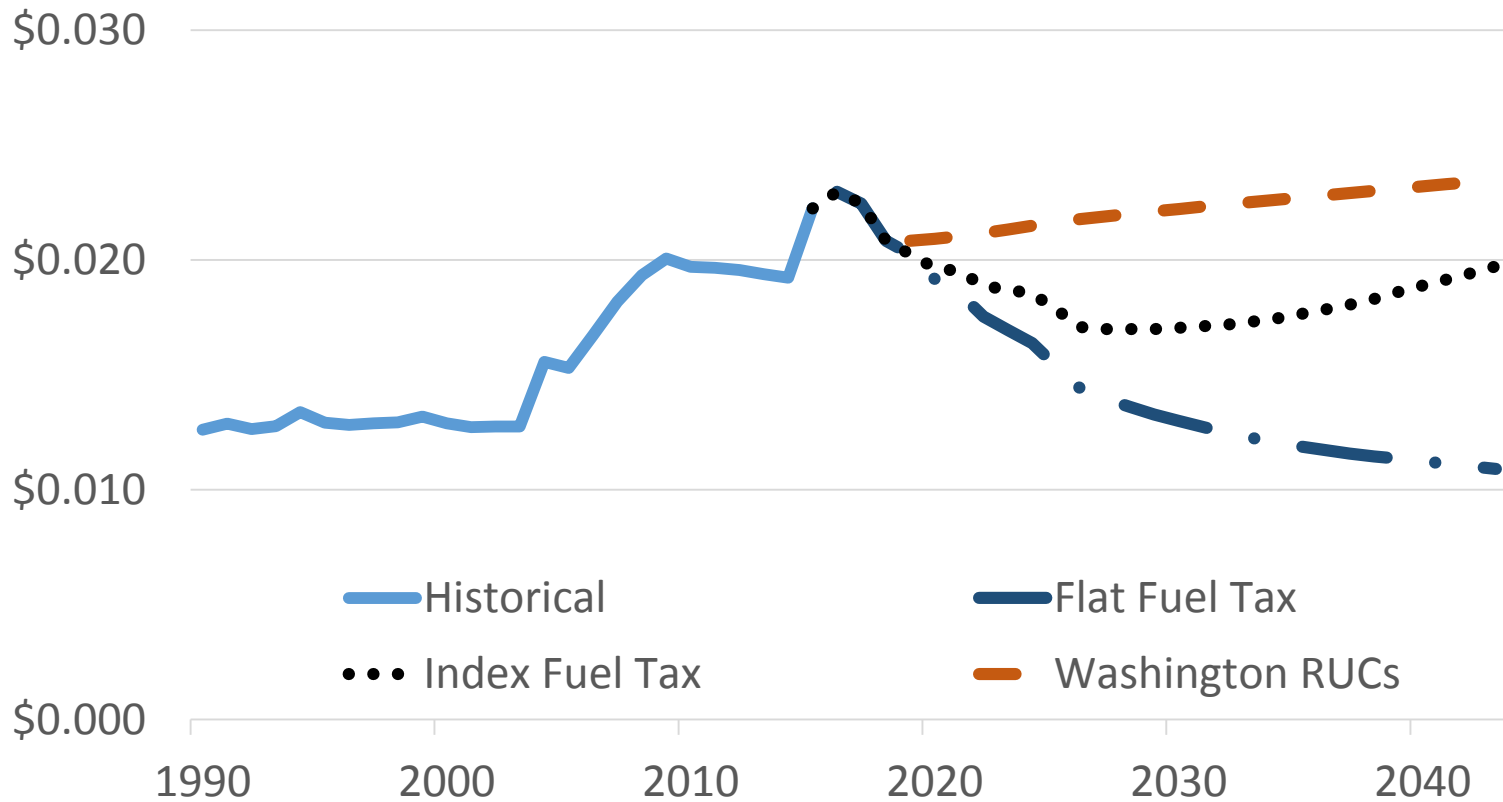


# CAFE Detroit

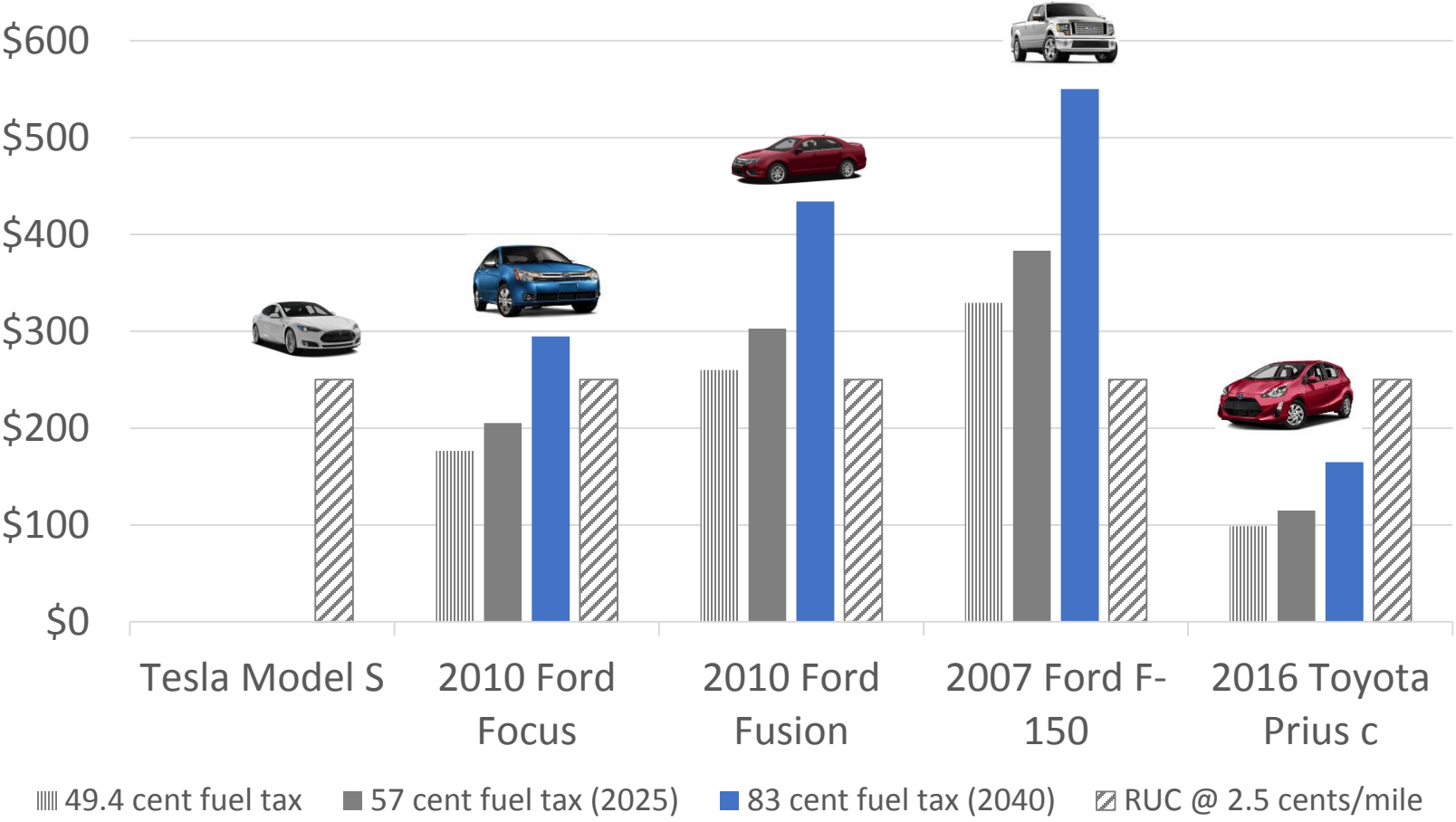




# Shift Happens

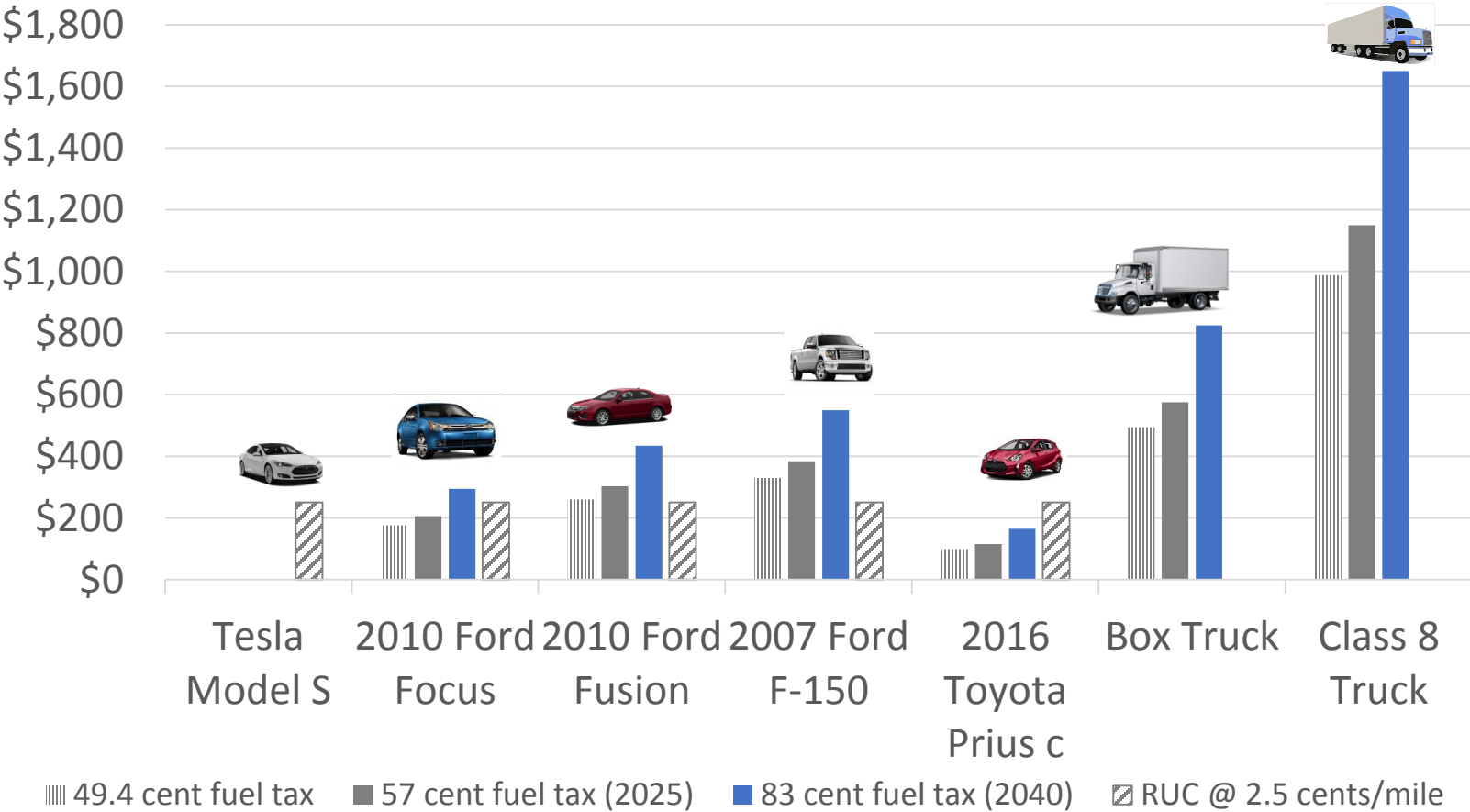


# Comparison of Impact of Policies by Vehicle Type




*Assumes 10,000 miles driven*

# Comparison of Impact of Policies by Vehicle Type



*Assumes 10,000 miles driven*

# Summary of Results

Alternative	Goal: Long Term Revenue Sustainability vs. MPG   vs. Inflation   Overall	Guiding Principle: Fairness	Guiding Principle: Cost Effectiveness
Flat Fuel Tax	○   ○   ○	◐	●
Index Fuel Tax	○   ●   ◐	○	●
Washington RUCs	●   ○   ◐	●	 short → medium → long

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# Federal Transportation Reauthorization Status



- December 1: Congress reconvenes
- December 4: MAP-21 expires
- December 11: FY '16 Approps expire (government shutdown)

## Key issues:

- Highway and Transit policy appears to be resolved
- Level of funding and “payfors” uncertain
  - Three year bill at flat levels?
  - Five year bill at higher levels?
  - Six year bill at flat levels?

# Federal Reauthorization Act Grant Funding for RUC Pilots

## Senate & House Transportation Bill Comparison

Provision	Senate	House
Multiyear Funding	FY 2016: \$15 million FY 2017-21: \$20 million	FY 2016: \$15 million FY 2017-21: \$20 million
Grant Purpose	Research activities (may include demo projects)	Demonstration activities
“Functionality”	Research to help define functionality of RUC	Demonstration activities to improve functionality of RUC
Establishes Advisory Council	Yes	No
Reporting Structure	Recipient>Council>Secretary>Congressional Committees	Recipient>Secretary>Public Report Online
Addresses Congestion Pricing	No	Yes
Specifies RUC as Non-toll Revenue	No	Yes

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# Impetus for a Washington RUC Roadmap

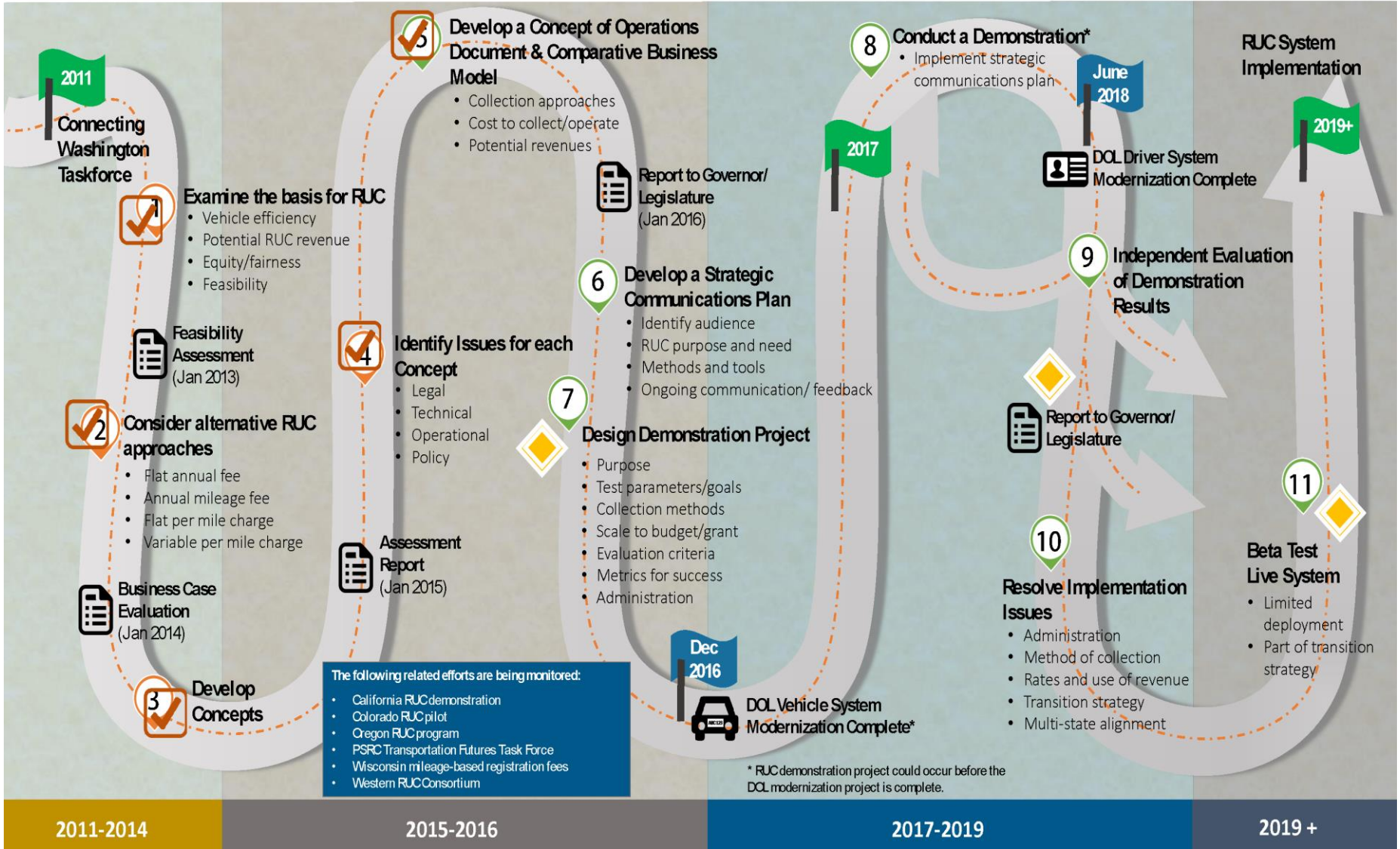
- What is the logic behind the activities conducted to date?
- What is the proper sequence of activities?
- What are the major milestones in RUC development?
- What must be done now to move to the next milestone – a RUC demonstration test?
- What are the waypoints between a demonstration and a future RUC system?
- When is the Legislature provided with sufficient information to make a “go/no go” decision?

**Why explore a Road Usage Charge?**

- Diminishing returns from motor fuel tax
- Growing tax discrepancies based on vehicle type, instead of actual roadway use
- Sustainable revenue needed to bolster or replace existing transportation fund sources

**Initial exploration to RUC system implementation:**

- Research Milestones
- Completed Milestones
- Report to Governor/Legislature
- Development Milestones
- WSTC/Steering Committee Review



The following related efforts are being monitored:

- California RUC demonstration
- Colorado RUC pilot
- Oregon RUC program
- PSRC Transportation Futures Task Force
- Wisconsin mileage-based registration fees
- Western RUC Consortium

\* RUC demonstration project could occur before the DCL modernization project is complete.

# RUC Roadmap in Washington

## Past (2007 – 2015)

- RUC Exploration
- RUC Investigation
- RUC Design

## Present (2015 – 2016)

- Demo Preparation
  1. Prioritize unresolved issues
  2. Develop evaluation criteria
  3. Develop strategic communications plan
  4. Final design of demonstration test

## Future (2017+)

- Live Demonstration
- Evaluation
- Revisions
- Pre-implementation
- Implementation

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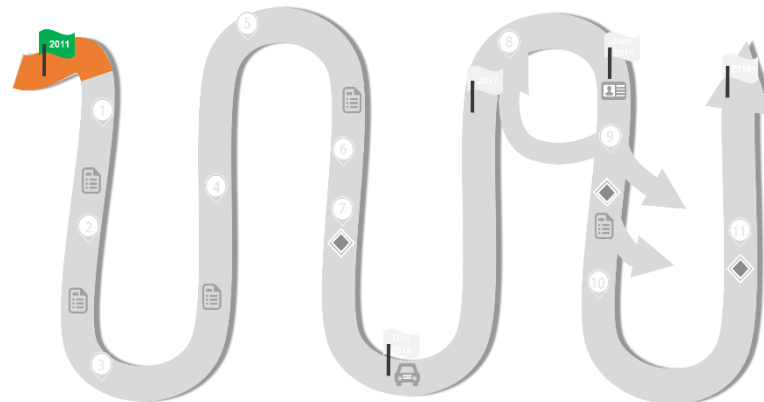
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# RUC Roadmap in Washington

## RUC Exploration

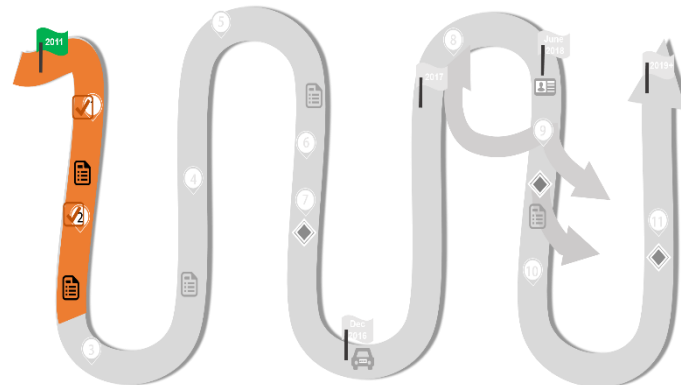
- **2007** – Long-Term Transportation Financing Study
- **2008** – Puget Sound Regional Council’s Traffic Choices study (2007)
- **2009** – Implementing Alternative Transportation Funding Methods
- **2011** – WSTC pledges joint cooperation with Oregon and California
- **2011** – Governor’s *Connecting Washington* Blue Ribbon Task Force



# RUC Roadmap in Washington


## RUC Investigation

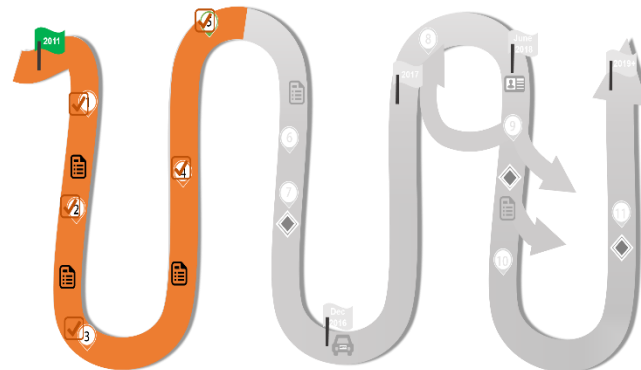
- 1 Legislature creates the RUC Steering Committee
- 2 Feasibility Assessment
- 2 Desirability Assessment
- Business Case Evaluation



# RUC Roadmap in Washington

## RUC Design

- 3 Develop higher-level concepts for how RUC might work
  - 4 Issues registry (“policy issue parking lot”)
  - 5 Develop Concept of Operations (“blueprint”) for RUC
-  Detailed business case evaluation



# RUC Roadmap in Washington

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- RUC Design

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# RUC Roadmap in Washington

## Demo Preparation

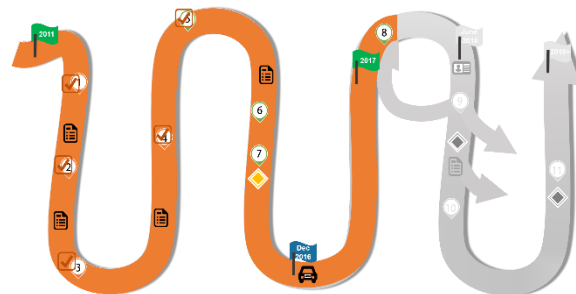
Prioritize Unresolved Issues

Develop Evaluation Criteria

6 Develop Strategic Communications Plan

Leverage Other Resources

7 Design the Demonstration Project



# RUC Roadmap in Washington

## Past (2007 – 2015)

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- RUC Investigation
- RUC Design

## Present (2015 – 2016)

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## Future (2017+)

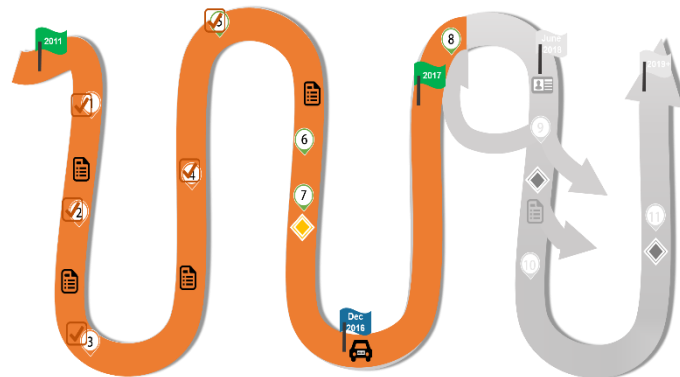
- Live Demonstration
- Evaluation
- Revisions
- Pre-implementation
- Implementation

# RUC Roadmap in Washington

## Live Demonstration Test

Implement the Strategic Communications Plan

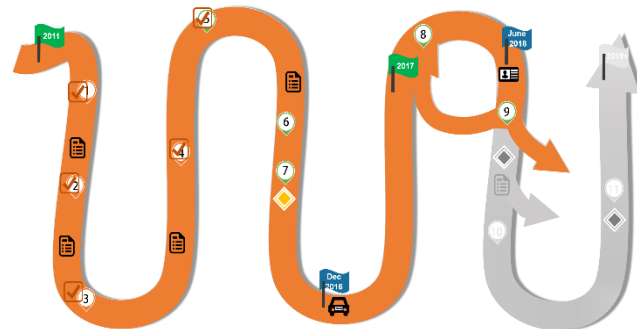
8 Implement the Demonstration Project



# RUC Roadmap in Washington

## Evaluation

- 9 Full assessment of demo's performance against Evaluation criteria and performance measures
- Hard stop – Evaluation report delivered to legislature

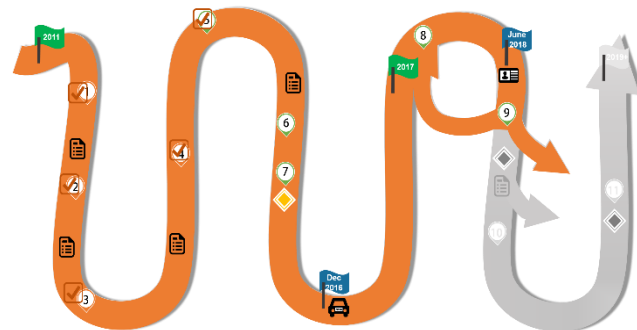


# RUC Roadmap in Washington

## Revisions

If Legislature authorizes continued work, revisions to RUC system made.

Revisions based on acceptance factors detected in demo test, and any further legislative direction.



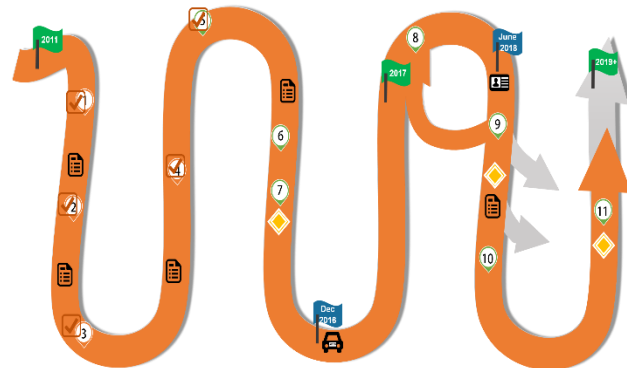
# RUC Roadmap in Washington

## Pre-Implementation Activities

Organizational design

10 Resolve remaining implementation issues (Tier 3)

11 Beta test the live RUC system



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# RUC Technology Spotlight Session

**Moderator:** Matthew Dorfman, D'Artagnan Consulting  
True Mileage, Seattle WA: Ryan Morrison  
Vehcon, Atlanta GA: Fred Blumer  
Azuga, San Jose CA: Nate Breyer  
SmartCar, Mountain View CA: Alex Harvey-Gurr



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# Review of Steering Committee's 2014 Demonstration Proposal

## Work plan with three areas of activity:

### Demonstration

- **Objectives:**

- Expose Washington motorists to road usage charging policy and concepts;
- Raise awareness of transportation funding issues;
- Test road usage charge operations,
- Identify organizational challenges; and
- Refine cost estimates.

- **Activities:**

- Plan, execute, and evaluate a demonstration of road usage charging methods.

### Public Attitude Assessment

- **Objectives:**

- Evaluate how well the public understands transportation funding sources and needs;
- Assess public understanding of road usage charging; and
- Identify questions, concerns, and reasons for support and opposition.

- **Activities:**

- Polling;
- Surveys;
- Focus groups;
- Stakeholder meetings, research, and analysis.

### Public Communications and Engagement

- **Objectives:**

- Communicate the purpose and details of the demonstration;
- Address questions about road usage charging; and
- Stimulate and monitor public discussion of transportation funding;

- **Activities:**

- Recruit participants;
- Provide Q&A to demonstration participants, public, and media;
- Provide speakers to community groups; and
- Maintain web and social media presence.

# Review of Steering Committee's 2014 Demonstration Proposal

## Work plan was staged, to allow legislative check-in/approvals:

Stage of the Work Plan	Stage 1: Planning	Stage 2: Setup	Stage 3: Execution	Stage 4: Evaluation	Estimated Cost (millions)
<b>Demonstration</b>	Develop budget and detailed demonstration plan, including technical documents.	Procure technology vendors and set up necessary systems.	Conduct demonstration and collect evaluation data.	Evaluation, analysis, and reporting, including findings and recommendations.	<b>\$2.4 to \$4.5</b>
<b>Public Attitude Assessment</b>	Baseline assessment via web surveys, focus groups, and stakeholder interviews.	Attitudinal surveys.	Participant surveys.	Comprehensive report on attitude assessment.	<b>\$0.4 to \$0.6</b>
<b>Communications and Engagement</b>	Prepare communications plan, manage communications, and begin media outreach.	Recruit demonstration participants and engage media.	Proactive communications during demonstration.	Continue media engagement and report on findings.	<b>\$0.3 to \$0.5</b>
<b>Project Management</b>	Coordinate and manage the project deliverables. Direct and provide policy interface, reports and presentations.	Coordinate and prepare the agreed plans for executing and testing the demonstration plan.	Manage and monitor the execution of the demonstration and reporting status to Legislature.	Prepare and present final reports and analysis.	<b>\$0.3 to \$0.4</b>
<b>Estimated Timeframe</b>	<i>6 to 8 months</i>	<i>6 to 12 months</i>	<i>6 to 12 months</i>	<i>6 to 9 months</i>	<i>24 to 41 months</i>
<b>Estimated Cost (millions)</b>	<b>\$0.8 to \$1.0</b>	<b>\$0.6 M to \$1.2</b>	<b>\$1.4 to \$3.0</b>	<b>\$0.6 to \$0.9</b>	<b>\$3.4 to \$6.0</b>

# Revisiting Steering Committee's Guiding Principles for RUC System

Guiding Principle	Summary
<b>Transparency</b>	A RUC system should provide transparency in how the transportation system is paid for.
<b>Complementary policy objectives</b>	A RUC system should, to the extent possible, be aligned with Washington's energy, environmental, and congestion management goals.
<b>Cost-effectiveness</b>	The administration of a RUC system should be cost-effective and cost efficient.
<b>Equity</b>	All road users should pay a fair share with a RUC.
<b>Privacy</b>	A RUC system should respect an individual's right to privacy.
<b>Data Security</b>	A RUC system should meet applicable standards for data security, and access to data should be restricted to authorized people.
<b>Simplicity</b>	A RUC system should be simple, convenient, transparent to the user, and compliance should not create an undue burden.
<b>Accountability</b>	A system should have clear assignment of responsibility and oversight, and provide accurate reporting of usage and distribution of revenue collected.
<b>Enforcement</b>	A RUC system should be costly to evade and easy to enforce.
<b>System Flexibility</b>	A RUC system should be adaptive, open to competing vendors, and able to evolve over time.
<b>User Options</b>	Consumer choice should be considered wherever possible.
<b>Interoperability and Cooperation</b>	A Washington RUC system should strive for interoperability with systems in other states, nationally, and internationally, as well as with other systems in Washington. Washington should proactively cooperate and collaborate with other entities that are also investigating RUC.
<b>Phasing</b>	Phasing should be considered in the deployment of a RUC system.

# Connecting the Guiding Principles with Demonstration Purposes

**Demonstration Purpose:** Gauge Washington motorists' preferences and relation to RUC policy and concepts

Guiding Principle Addressed	Demonstration Objectives
Simplicity	Test ease of use of RUC mileage reporting methods as recommended in Washington
Cost-effectiveness	Collect data on operational costs of RUC system in Washington state
Accountability	Identify agency capabilities, challenges and needs
System flexibility	Assess flexibility of a RUC system to be adapted for other services in Washington state
Enforcement	Test the enforceability of Washington's recommended RUC methods
Privacy	Test Washington motorists' privacy preferences
Equity	Assess potential differential impacts of RUC on Washington residents

# Connecting the Guiding Principles with Demonstration Purposes

**Overriding purpose for RUC:** Sustainable and more equitable revenue source to fund transportation

→ **Guiding Principles for a Future RUC system:** 13 Principles

→ **RUC Policy Issues:** Identify and prioritize based on when and how they will be decided

→ **Primary Purpose of Demonstration:** Gauge Washington motorists' preferences and reaction to RUC policy and concepts

→ **Evaluation of Demonstration:** Measure whether or how well the RUC system (as tested) addresses the guiding principles

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# 2015 Report to the Legislature and Governor

## Outline

- **2014 Steering Committee**
  - Members and affiliations
- **Prologue / Executive Summary**
  - Summary of where we are, what lies ahead and how the Steering Committee recommends we get there.
- **Section 1: Introduction**
- **Section 2: Work done to date in Washington on Road Usage Charge**
- **Section 3: Legislative Direction and 2015 Work Plan**
- **Section 4: Recent and Emerging Transportation Funding and Policy issues at the Federal, State and Local Level related to Road Usage Charge**



# 2015 Report to the Legislature and Governor

- **Section 5: RUC Business Case Analysis Update**
- **Section 6: Status of Road Usage Charging Initiatives in the US and Other Countries**
  - Oregon, California, Wisconsin, Other Countries
  - Western State Road Usage Charge Consortium
- **Section 7: Moving forward to explore RUC in Washington: The Roadmap**

# 2015 Report to the Legislature and Governor

- **Section 8: Work Program Priorities for 2016**
  - Addressing prioritized unresolved policy questions
  - Developing an evaluation framework for a demonstration
  - Designing a strategic outreach and communications effort
  - Revising the 2014 demonstration plan in line with the principles and outcomes of the above work

# Prioritize Unresolved Policy Questions

## Tier 1: Address prior to a demonstration

- How to operationalize the four road usage charge operational concepts
- Whether and how to charge out-of-state drivers
- Exemptions
- Refunds
- Private account managers

## Tier 2: Address as part of a demonstration

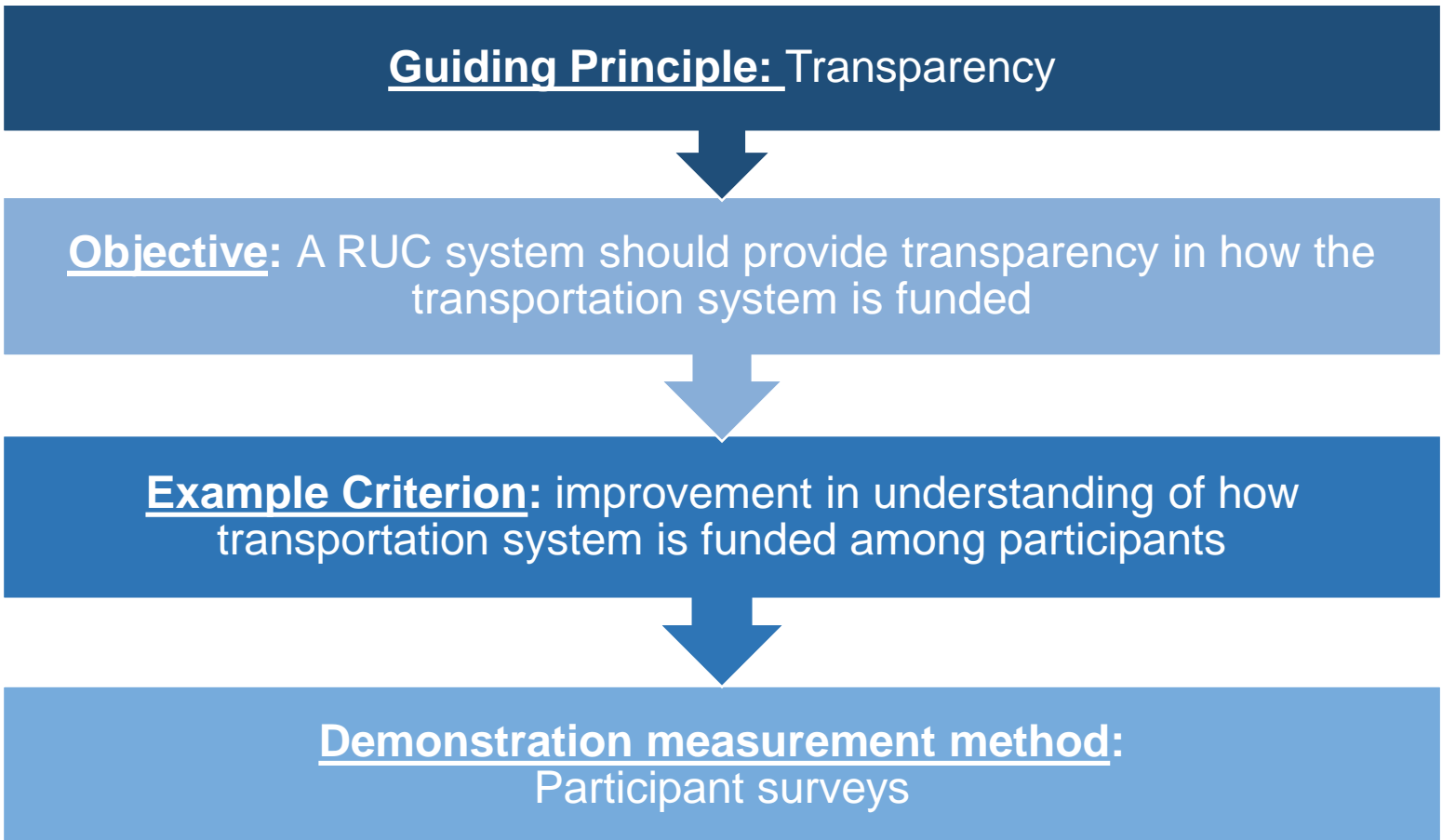
- How will the transportation users react to the proposed RUC system?
- Public understanding and acceptance of a proposed system
- State IT needs
- Institutional roles

## Tier 3: Address outside the scope of a demonstration

- Per-mile rate setting
- Dedication of RUC revenue
- Interoperability with toll system
- Rate setting for time-based permit
- Motor fuel tax bonds
- Vehicles subject to charge
- Legal issues
- Interoperability with other states

# Develop Evaluation Criteria for Demonstration Project

Example:



# Craft Strategic Communications Plan

*A strategic communications plan* provides the framework for engagement on all aspects of advancing RUC in Washington:

- Communicate the purpose and details of the demonstration;
- Address questions about road usage charging; and
- Assessment of understanding and baseline opinions about RUC as a source of revenue

# Create a Demonstration Proposal that Works for Washington

- Articulate the need for and purpose of a demonstration
- Define key parameters that reflect the guiding principles and evaluation criteria, such as:
  - Location, number, and type of participants
  - Degree of agency involvement
  - Concepts to test
  - Duration of test
- Leverage other activities:
  - Approaches in other states
  - Western RUC Consortium (WRUCC)
  - Federal Grant Funding
  - DOL's Vehicle System Upgrades