WASHINGTON STATE ROAD USAGE CHARGE
Steering Committee Meeting
November 9, 2017
Mercer Island Community & Event Center,
Mercer Island, Washington
WELCOME AND INTRODUCTIONS

• Steering Committee member self-introductions
• Recognition of invited guests
• Summary of WA RUC Pilot Project
• Meeting objectives
WA RUC PILOT PROJECT AT-A-GLANCE

• Research question: could a per-mile charge someday replace the state’s gas tax?

• Seeking 2,000 Washington drivers to help test a RUC system – no cost to participate.

• 12-month test, no collection of actual money, periodic surveys of participants.

• Drivers can choose from among four mileage reporting options – from no-tech to high-tech. GPS (location) data is not required.

• How out-of-state miles will be treated is a key research topic for the pilot test.
IMPORTANT POINTS

• RUC is only one option being considered to stabilize transportation revenues in the coming years

• Purpose of the pilot project: find out what Washington drivers like, dislike and would want changed in any future RUC system

• RUC is being investigated as a replacement for the state gas tax – not in addition to the gas tax

• The results of this research will be forwarded to WSTC and the legislature in 2020 for their consideration
MORE INFORMATION ON WA RUC

• Fact sheet (on back table, and on website)

• WA RUC web site contains all prior meeting information and research materials:
  
  www.WaRoadUsageCharge.org

• Questions? Call or email:
  
  1-833-WASH-RUC (833-927-4782)
  
  info@waroadusagecharge.org
OBJECTIVES FOR TODAY’S MEETING

• Report on work-in-progress
• Demonstrate how participants will experience the pilot project
• Display how the back-office system for WA RUC will work
• Gain Steering Committee feedback on two work products (Evaluation Plan and Policy Research Work Plan)
STSFA ROUND 2 GRANTS

• Washington’s Round 2 award
• Other states’ Round 2 awards

Jeff Doyle,
Project Manager
D’Artagnan Consulting
FHWA administers STSFA grant program
- $95 M over 5 years (2016-2020)
- Round 1 (October 2016): total of $15 M awarded to seven states
- Round 2 (October 2017): total of $15.5 M awarded to six states

In 2016, Washington received a Round 1 grant award:
- Fully funded Stage 1 (Final Design & Set-up, $3.874 M)
- Did NOT fund Stage 2 (12-month live pilot) and Stage 3 (evaluation and reporting)
WASHINGTON’S ROUND 2 STSFA AWARD

WSTC’s request for $4.6 M was granted
  • All stages of the Pilot Project are now fully funded

WA RUC project scope was enhanced:
  • Added the Mileage Permit option to test in the pilot
  • Privacy Impact Assessment will be conducted; intent is to develop a model for future RUC systems
  • Proof-of-concept to test a multi-jurisdictional clearinghouse ("Hub") that can securely and efficiently collect and distribute RUC revenue between states
  • Expanded the pilot to include drivers from Idaho – a non-RUC state
  • Research and analysis on 18 identified (but unresolved) RUC policy issues
Six other grants were made (Colorado was the only new applicant):

- **Caltrans** ($1.75 M): will explore ways to collect mileage-based charges at retail gas stations and EV charging stations
- **Colorado DOT** ($500k): will explore data collection mechanisms
- **I-95 Corridor Coalition** ($975k): Delaware will lead research into equity and privacy issues along the I-95 corridor
- **Missouri DOT** ($2.77 M): examining potential MPG-based registration fee to replace registration fee based on engine horsepower
- **Oregon DOT** ($2.32 M): will examine ways to improve their existing RUC program
- **RUC West Consortium** ($2.6 M): Oregon DOT will lead a pilot between Oregon and California, with the intent of expanding their approach regionally (western US)
STAGE 1 PILOT PROJECT ACTIVITIES

Jeff Doyle,
Project Manager
D'Artagnan Consulting

• Technical Design & Set-up
# STATUS OF TECHNICAL DESIGN & SETUP

<table>
<thead>
<tr>
<th>Completed or nearing completion:</th>
<th>To be completed by December:</th>
<th>Scheduled for later (after January 2):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Technical specifications and test plans</td>
<td>• Help desk and participant support</td>
<td>• Organizational design (potential roles for government, private sector in a future RUC system)</td>
</tr>
<tr>
<td>• Setup of service providers, reporting systems, accounting systems, etc.</td>
<td>• Partnerships with DOL agents/subagents to provide in-person odometer verification</td>
<td>• Testing and launch of financial interoperability (Hub) with OReGO</td>
</tr>
<tr>
<td>• Design and programming of smartphone application</td>
<td>• Finalize the evaluation plan</td>
<td></td>
</tr>
<tr>
<td>• Designing the multi-jurisdictional RUC clearinghouse function (Hub)</td>
<td>• System testing</td>
<td></td>
</tr>
</tbody>
</table>
PILOT PROJECT VIRTUAL TOUR

- Communicating with the public and recruiting test drivers
- Enrolling test drivers
- Providing RUC services to drivers
- Live demo: mileage reporting by mobile phone
- Back-office details
VIRTUAL TOUR APPROACH

- Public view: test drivers’ experience
VIRTUAL TOUR APPROACH

- Back-office view: governmental and private firm perspective
PILOT PROJECT AWARENESS, INFORMATION AND RECRUITMENT

- Project Communications
- Volunteer Recruitment

Ara Swanson and Alison Peters, EnvirolIssues
COMMUNICATIONS GOALS REMAIN

- Inform and educate the public.
- Recruit participants into the pilot project from across the state.
- Generate broad understanding for the pilot project.
- Cultivate balanced and accurate media coverage.
- Assess public opinion before and throughout the course of the pilot.
## Communications and Recruitment Activities

<table>
<thead>
<tr>
<th>July 2017</th>
<th>August 2017</th>
<th>September 2017</th>
<th>October 2017</th>
<th>November 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E-newsletter</td>
<td>Website update</td>
<td>E-newsletter</td>
<td>E-newsletter</td>
</tr>
<tr>
<td></td>
<td>Website update</td>
<td></td>
<td>Spanish-language webpage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earned media</td>
<td></td>
<td>Leverage existing communications networks</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Paid advertising</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Demographic Survey</td>
<td></td>
</tr>
</tbody>
</table>

Communications and Recruitment Plans Finalized
## E-NEWSLETTERS

<table>
<thead>
<tr>
<th></th>
<th>Total Number of Recipients</th>
<th>Open Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2017</td>
<td>894</td>
<td>74%</td>
</tr>
<tr>
<td>August 2017</td>
<td>1,101</td>
<td>55%</td>
</tr>
<tr>
<td>September 2017</td>
<td>2,375</td>
<td>59%</td>
</tr>
<tr>
<td>November 2017</td>
<td>3,342</td>
<td>58%</td>
</tr>
</tbody>
</table>

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**PUBLIC’S PERSPECTIVE**

It's an exciting time for the [Washington State Road Usage Charge (WA RUC) Pilot Project](https://www.wa.gov/wa-ruc) as we began recruitment in October. Interested in taking WA RUC for a test drive? Read on:

- **We're gearing up!**
- **What's next?**
- Share your WA RUC experience with us
- [Ahora puedes participar](https://www.wa.gov/wa-ruc)

A tree-lined drive on the Olympic Peninsula, WA.

**We're gearing up!**

Thank you for your continued engagement in this pay-per-mile pilot of a potential new way to pay for roads in Washington.
WEBSITE UPDATES

- Aim to gradually add information and details about the pilot and to support recruitment

- September updates included a new sign-up page, updated FAQ and recruitment video

- October updates added Spanish language page and sign-up
PUBLIC’S PERSPECTIVE

RECRUITMENT VIDEO

https://www.youtube.com/watch?v=hhaVaZv_oTM
EARNED MEDIA

• **Mid-August: Initial outreach** to reporters and publications at traditional newspapers through Washington state

• **Late October / Early November:** Targeted outreach to key publications in target geographic areas

• **Results:** From August through early November, over 50 media stories were published (print, online radio, TV)
PUBLIC'S PERSPECTIVE

ADVERTISING – SOCIAL MEDIA

Washington State Transportation Commission

September 21 at 9:17am
The gas tax pays for road, bridge and ferry repairs. But what if we paid by the mile, instead of by the gallons of gas we buy? Help us test a road usage charge – sign up today!

Join the Pilot Project
Test drive the road ahead
WWW.WAROADUSAGECHARGE.ORG

Like Comment Share
31 Comments 11 Shares

Washington State Transportation Commission

October 23 at 8:37pm
The gas tax pays for road and bridge repairs. But what if we paid by the mile, instead of by the gallons of gas we buy? Help us test a road usage charge – sign up today!

Join the Pilot Project
Test drive the road ahead
WWW.WAROADUSAGECHARGE.ORG

Like Comment Share
251 Views 64 Comments

Washington State Transportation Commission

November 1 at 2:57am
El Impuesto de la gasolina se usa para financiar nuestras carreteras, puentes y sistemas de transportadores. ¿Pero qué pasaría si pagáramos por las millas que conducimos, en vez de pagar por los galones de gasolina que compramos? Ayúdenos a probar el cobro por al uso de las carreteras. ¡Regístrate hoy!

See Translation

¿Paga por milla o galón? Washington
Participe en el proyecto piloto
Pruebe la carretera adelante.
WWW.WAROADUSAGECHARGE.ORG/REGISTER

Like Comment Share
Copyright © Washington State Transportation Commission 2019

WA RUC
PUBLIC'S PERSPECTIVE

ADVERTISING – PRINT AND ONLINE
LEVERAGING EXISTING COMMUNICATIONS NETWORKS

- Reaching out to targeted, statewide organizations to help share information about the WA RUC Pilot Project and drive interest list sign-ups

- Provide content to be shared, including newsletter text, social media content, website content, sample blog posts and more.
WEBSITE ANALYTICS – NUMBER OF SESSIONS BY DATE

Data between August 14 and November 6, 2017
WEBSITE ANALYTICS – TYPES OF USERS

User type
New vs. returning visitors for current period

- 19.4% New Visitor
- 80.6% Returning Visitor

Data between August 14 and November 6, 2017
WEBSITE ANALYTICS – TOP REFERRALS

<table>
<thead>
<tr>
<th>Source</th>
<th>Pageviews</th>
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</thead>
<tbody>
<tr>
<td>1 Direct</td>
<td>6,933</td>
</tr>
<tr>
<td>2 Facebook (desktop)</td>
<td>6,079</td>
</tr>
<tr>
<td>3. Google</td>
<td>2,486</td>
</tr>
<tr>
<td>4. king5.com</td>
<td>1,892</td>
</tr>
<tr>
<td>5. wstc.wa.gov</td>
<td>1,471</td>
</tr>
<tr>
<td>6. Facebook (mobile)</td>
<td>1,099</td>
</tr>
<tr>
<td>7. WA RUC e-newsletter</td>
<td>1,086</td>
</tr>
<tr>
<td>8. mynorthwest.com</td>
<td>758</td>
</tr>
<tr>
<td>9. seattletimes.com</td>
<td>725</td>
</tr>
<tr>
<td>10. kitsapsun.com</td>
<td>442</td>
</tr>
</tbody>
</table>

Data between August 14 and November 6, 2017
## WEBSITE ANALYTICS – TOP CONTENT

Data between August 14 and November 6, 2017

<table>
<thead>
<tr>
<th>Page</th>
<th>Pageviews</th>
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</thead>
<tbody>
<tr>
<td>Home</td>
<td>21,717</td>
</tr>
<tr>
<td>Sign-up</td>
<td>1,903</td>
</tr>
<tr>
<td>FAQs</td>
<td>1,789</td>
</tr>
<tr>
<td>About</td>
<td>904</td>
</tr>
<tr>
<td>Contact</td>
<td>565</td>
</tr>
<tr>
<td>Regístrate (Spanish)</td>
<td>350</td>
</tr>
</tbody>
</table>
PARTICIPANT SIGN-UP: HERE'S HOW IT WORKS

HERE’S HOW IT WORKS

STEP 1: Let us know you’re interested in being a participant in the pilot by signing up here.

STEP 2: Reply to your confirmation email to finalize your sign up.

STEP 3: Complete the short interest survey, which will be emailed to you after you sign up for the interest list.

STEP 4: To ensure we have a diverse set of people from all over the state, we will invite at least 2000 drivers to participate in the pilot.

STEP 5: In January 2016, invited participants will select a mileage recording method.

STEP 6: Start recording your miles!

STEP 7: During the pilot, review mock invoices and complete quarterly surveys. We will recognize your efforts with periodic gift cards.
PARTICIPANT SIGN-UP: STEP 1 – SIGN-UP

Step 1: Potential participants sign-up on the interest list at the WA RUC website
PARTICIPANT SIGN-UP:
STEP 2 – CONFIRM EMAIL ADDRESS AND SIGN-UP

Step 2: Potential participants confirm email address to finalize sign-up on interest list.

Please Confirm Subscription

Yes, subscribe me to this list.

By clicking the subscription button above, you will receive project updates and information about the pilot project study only. This does not automatically enroll you in the pilot. Later this summer, we will send you emails with pilot updates and information on participant selection.
PARTICIPANT SIGN-UP:
STEP 3 – COMPLETE DEMOGRAPHIC SURVEY

**Step 3:** Potential participants complete short interest survey (unique survey link emailed to each email address)
PARTICIPANT SIGN-UP: STEPS 4, 5 AND 6

- **Step 1:** Volunteers sign-up on the interest list at the WA RUC website
- **Step 2:** Volunteers confirm email address to finalize sign-up on interest list.
- **Step 3:** Volunteers complete short interest survey (unique survey link emailed to each email address)
- **Step 4:** At least 2,000 drivers invited to participate
- **Step 5:** Selected participants asked to select a reporting method
- **Step 6:** Participants begin recording their miles
- **Step 7:** Through the pilot, participants will review mock invoices and complete quarterly surveys; participants’ efforts will be recognized through gift cards.
INTEREST LIST GROWTH –  
KEY DRIVER FOR PARTICIPANT POOL

E-newsletters sent
Website updated
Targeted media engagement
First demographic Survey sent

Data as of November 6, 2017
DEMOGRAPHIC SURVEY REGIONS AND RESULTS (N = 2,469)

Data as of November 6, 2017
### INITIAL DEMOGRAPHIC SURVEY RESULTS

- **Total completed surveys:** 2,469 (as of November 6)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Central Puget Sound</th>
<th>Northwest</th>
<th>Eastern</th>
<th>Southwest</th>
<th>Central</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed</td>
<td>1,771</td>
<td>138</td>
<td>204</td>
<td>147</td>
<td>192</td>
</tr>
<tr>
<td>Female/Male</td>
<td>36%</td>
<td>63%</td>
<td>38%</td>
<td>62%</td>
<td>34%</td>
</tr>
</tbody>
</table>

*Data as of November 6, 2017*
## INITIAL DEMOGRAPHIC SURVEY RESULTS

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Electric or Plug-In Hybrid</th>
<th>Hybrid, no plugs</th>
<th>Motorcycle</th>
<th>Gas</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>175</td>
<td>17</td>
<td>2,046</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9%</td>
<td>7%</td>
<td>1%</td>
<td>83%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

Data as of November 6, 2017
### INITIAL DEMOGRAPHIC SURVEY RESULTS

<table>
<thead>
<tr>
<th>Identified Race or Ethnicity</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>1%</td>
<td>34</td>
</tr>
<tr>
<td>Native American</td>
<td>2%</td>
<td>48</td>
</tr>
<tr>
<td>Asian</td>
<td>4%</td>
<td>96</td>
</tr>
<tr>
<td>Caucasian</td>
<td>85%</td>
<td>2,189</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3%</td>
<td>68</td>
</tr>
<tr>
<td>Indian Sub-continent</td>
<td>&lt;1%</td>
<td>14</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>&lt;1%</td>
<td>12</td>
</tr>
<tr>
<td>None/Prefer not to answer</td>
<td>5%</td>
<td>121</td>
</tr>
</tbody>
</table>

Data as of November 6, 2017
# Initial Demographic Survey Results

## Income Distribution

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Data as of November 6, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $30K</td>
<td>125</td>
</tr>
<tr>
<td>$30K – $60K</td>
<td>477</td>
</tr>
<tr>
<td>$60K - $120K</td>
<td>1,079</td>
</tr>
<tr>
<td>$120K - $200K</td>
<td>509</td>
</tr>
<tr>
<td>More than $200K</td>
<td>166</td>
</tr>
<tr>
<td>Percent</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>
COMMUNICATIONS AND RECRUITMENT NEXT STEPS

• Continue analyzing results from communications activities and demographic survey to inform future strategies

• Target earned media in key areas and demographics to recruit additional potential participants

• Broaden online advertising campaign to target specific areas and demographics
ENROLLING TEST DRIVERS

Jeff Doyle,
Project Manager
D’Artagnan Consulting
SPECIAL PARTICIPANTS

• City of Surrey, BC
• Idaho drivers
• OReGO
• Electric vehicle drivers
CITY OF SURREY

• Approximately 200 drivers selected by the City of Surrey will be offered one RUC reporting method (automated distance charge) to test

• Special section of WA RUC web site will support ~200 drivers selected by the City of Surrey to participate in the pilot

• “Pitch packet” will be provided to Surrey to inform and recruit volunteers
IDAHO DRIVERS

- Idaho Department of Transportation will recruit about 50 drivers from areas along the ID-WA border to participate in the WA RUC pilot.
- Special web page and packet of information will be provided to support the Idaho drivers.
- Idaho drivers will have all mileage reporting options available to them, except in-person support for odometer readings (no DOL subagents in Idaho to support this).
OREGON’S OReGO RUC PROGRAM

- **Purpose**: identify a model for collecting RUC for interstate travel
- This is a “back-office” test of Oregon and Washington’s statutes and accounting rules for how to handle multistate revenue collection
- No more than 20 OReGO-enrolled drivers, and 20 WA RUC enrolled drivers
- Participants will be provided with a RUC account balance (real money) to pay for their interstate travel
- All issues (legal, accounting, operational) will be carefully documented to be resolved for any future RUC system
ELECTRIC VEHICLE DRIVERS

- Purpose: measure whether Washington plug-in electric vehicle drivers would prefer RUC over current system of flat-rate EV registration fees ($100 + $50 for fast-charging network)

- Seattle Electric Vehicle Association and Plug-in America are helping recruit drivers

- 24,624 PEVs registered in Washington (0.51% of passenger fleet)

- 230 PEV owners have signed up for pilot – 9% of sign-ups
ENROLLMENT INVITATION PROCESS

- Washington “recruits” are volunteers who have completed the demographic survey

- Invitations will be sent in batches to help ensure geographic and demographic diversity in the pilot test

- Policymakers will be invited, but will not be included in the count of 2,000 test drivers
ENROLLMENT INVITATION PROCESS

• Invitations will be sent in “batches” – with first invites sent to geographic areas that are under-represented in the volunteer pool – to ensure diverse representation of the state.
Congratulations and Happy New Year! You are one of 2,000 Washington drivers who are now invited to enroll in the Washington Road Usage Charge Pilot. This invitation is non-transferable and you have been assigned a unique account activation code that you will need to set up your account.

Account Activation Code: ABC123

Keep reading to find out more about your RUC reporting options and the account managers that will be supporting the RUC pilot (and don’t worry … all this information is also available on the enrollment website).

Click here to start your enrollment. (If the link does not work, copy this one into your web browser: https://enrollment.waroadusagecharge.com…)

Click here if you have decided not to participate after all.

Email invitations will be sent starting January 2, 2018.

Will have unique activation code that only works in combination with the participant’s email.

Will contain a direct link to the enrollment web page.
ENROLLMENT WELCOME PAGE

- Outlines enrollment steps
- Describes mileage reporting methods, with links to more detailed information
SELECT MILEAGE REPORTING METHOD

Invitees can click on a RUC option to get more detailed information about the different mileage reporting options, requirements, and services before deciding.
DETAILED INFORMATION FOR EACH RUC OPTION

• More detail is available to learn about each RUC reporting option

• Any limitations will be noted (e.g., only works with certain vehicle types)

• More information about the Service Providers who support select RUC options
PARTICIPATION AGREEMENT & PRIVACY POLICY

Invitees must read and agree to the Participation Agreement before enrolling in the pilot project.
Creating a WA RUC Account

Easy account set-up:

- Name and activation code are pre-populated
- “Single Sign On” will allow drivers to keep same account log-in even if they switch providers
SELECTING A RUC METHOD AND SERVICE PROVIDER

• Participant will choose from among the four available RUC reporting options

• If both Service Providers support the chosen RUC option, Participant will need to select which Service Provider

➢ Next stop: RUC Service Provider’s web portal
WA RUC PILOT PROJECT HELP DESK

Have questions or need help choosing a mileage reporting method or enrolling? Call the WA RUC live help desk:

1-833-WASH-RUC
BACK-OFFICE DETOUR: W A RUC SERVICE PROVIDERS

Matthew Dorfman,
Technology Lead,
D’Artagnan Consulting
SERVICE PROVIDERS

• Vendors providing RUC management services to participants
• Develop systems based on Open Standards
• Having 2 service providers simulates possible future Open Market
• May provide non-RUC value-added services to participants
• During enrollment, participants sign up on the main WARUC page, then jump to the RUC Service Provider’s web portal
• Participants have the opportunity to switch service providers
SYSTEM OVERVIEW
PILOT HELP DESK

- Supports participants by phone and email throughout pilot
- Intended for pilot-level questions—above the level of the service provider
- Main role is to help participants select operational concept and service provider
RPM (RUC Participant Management)

- Database for participant data (name, address, phone) and vehicle data (VIN, license plate)
- Available to Service Providers and Pilot Help Desk
- Allows for pilot-wide single sign on
- Secure PII storage & transmission
RUC ACCOUNTING (RUCA)

- Database containing participant monthly pilot travel reports
- Simulates State/Provincial RUC oversight agencies
- Participant data available to state for which participant is registered
- Verify participant compliance
- Secure PII storage & transmission
INTEROPERABILITY HUB

- Database containing aggregate monthly pilot travel reports (no PII)
- Supports monetary reconciliation between states (quarterly)
- Summary level data shared among participating states
- Secure storage/transmission, but contains no PII
INTRODUCTION OF SERVICE PROVIDERS
EMOVIS

• Experience as Service Provider for OReGo

• Supports Mileage Permit, Odometer Charge, and Mileage Reporting Device with Location Data
  • Supports interface to DOL subagents

• Uses a commercially available mileage reporting device from Automatic
IMS

- Experience as Service Provider for OReGo and California Road Charge Pilot
- Supports all operational concepts
  - (no interface to DOL subagents)
- Provides own Mileage Reporting Device
VEHCON

- App and System developer
- Experience in California RCPP
- Provides
  - RPM
  - Interoperability Hub
  - RUCA
  - MVerity on Demand (process for verifying odometer readings)
  - Smartphone with location app
INTELLIGENT MECHATRONICS SYSTEMS (IMS)

Dr. Ben Miners
Project Manager,
IMS
Intelligent Mechatronic Systems (IMS)

Enhancing the utility, safety and environmental impact of transportation with innovative technology, services and analytics

- 18y Automotive Quality + Security by Design
- 50M US Vehicle Audience
- 750K Connected Driver Activations
- 6.0B Data Points Processed Daily
IMS – Connected Car Services and Analytics

We deliver complete end-to-end systems to enable usage-based services for drivers, government programs, insurers, enterprises, and more...

- Provide telematics tech to collect data & enable mobility services
- Integrate, secure, & manage data from cars, drivers, and the IoT
- Process & analyze available data to create value
- Operate applications, services, & insights for authorized stakeholders
- Deliver valuable and engaging services for vehicle owners and drivers

Telematics | Informatics | Analytics | Applications
IMS – DriveSync® Platform

Flexible services and analytics platform designed for partnerships to benefit multiple stakeholders

Data Sources:
- Mobile
- Aftermarket
- OEM

Applications:
- Road Usage Charge
- Connected Car Services
- Insurance Telematics

Drivers (Engagement):
- Secure hosting & data warehousing
- Clean, processed, usable data
- Analytics & Insights

Insurers (Pricing, Claims):
- Robust data reporting suite
- Driving & mobility apps
- Automation & exchange APIs

Government (Smart Cities, RUC):
- Robust data reporting suite
- Driving & mobility apps
- Automation & exchange APIs
IMS – Recent Programs

Select Insurance Telematics Clients

![Brands logos](image)

Integrated Service Partners

![Brands logos](image)

Government Programs & Partners

![Brands logos](image)

IMS Proprietary & Confidential 2017
A-to-Be is a mobility technology company, designing and deploying advanced systems and payment platforms for transportation operators for 35 years.

We are about **transforming the ride** — making it easier, safer, more sustainable and fulfilling.

And when people get to the end of it, it’s not a **b**: it’s a **beyond**.

**A-to-Be**
**Mobility—Beyond**
Selected achievements in tolling and back-office recent contracts
A-to-Be MoveBeyond™

The central tool for integrated mobility management
A vision for mobility
Seamless experience across all modes of transportation

A-to-Be MoveBeyond™
A-to-Be® back office for central mobility management.

“A-to-Be MoveBeyond™ is an advanced mobility platform built with the latest state-of-the-art technology to process large volumes of data and scale in a linear fashion that is, at the same time, highly configurable, feature rich and easy to use.”

Central mobility management for all integrated services

- Parking
- Public Transport
- Fueling
- Commuting services
- Tolling
“The combined expertise that IMS and A-to-Be bring to road usage charge programs will deliver a seamless experience to Washington RUC participants.”
Seamless - Unified Participant Experience

DriveSync for Washington Road Usage Charge Pilot Project

- Dedicated & branded app
- Common interface
- Integrated driver services
- Enhanced services with OBD-II

Mobile (Location or Non-Location – Odometer verification)
OBD-II (No GPS)
OBD-II (GPS)
Odometer Charge or Mileage Permit

IMS Proprietary & Confidential
Multiple Available Operational Concept Choices

(Selected Examples)
Simple Self-Install
(Participants using automated methods)

**SEAMLESS PARTICIPATION**

- Streamlined enrollment wizard and instant compatibility validation
- Mature Canada and US-based logistics with convenient packaging
- Self-installation
- Automated invoice payments
- Review detailed daily mileage information
- Manage multiple vehicles within the same account
Online Interface Overview

**Registration Wizard** guides users through the sign-up process step by step.

**Self-Service portal** provides users with a complete view of their account including invoices, payments, vehicles and usage.
Value-Added Services
Engaging, connected driving app for participants

Personalized mobile experience and connected car apps that keep participants engaged while providing useful tools to improve driving habits and access to convenient on-demand services.

**Personalized App**
- Unified experience
- Android and iPhone (iOS)
- Intuitive user experience
- Flexible set of modules
- Customized for partners

**Trip IQ**
- Driving & trip scores
- Detailed trip log
- Route map
- Visualized events
- Coaching tips
- Trip logbook

**Vehicle Health**
- Integrated with RepairPal
- DTC interpretation
- Repair cost estimates
- Referral to local, certified repair shops

**Roadside Assistance**
- Urgent.ly on-demand roadside service integrated
- App + service provider API
- Use app to request help

**Incident Assistant**
- Easy to follow experience
- Capture collision details
- Take vehicle damage photos
- Capture license and insurance details
- Initiate claims process

**Additional App Features**
- Secondary driver
- Leaderboard
- Badge/incentive framework
- Collision reporting
- Find My Car

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Privacy by Design + End-to-End Security = Participant Acceptance

Consent Management
Privacy By Design
Data Protection

Designed for Partnerships
Secure and Scalable Infrastructure
IMS with A-to-Be: Powering the road ahead.
### Privacy by Design + End-to-End Security = Participant Acceptance

<table>
<thead>
<tr>
<th>Analytics</th>
<th>Research &amp; Development</th>
<th>Design &amp; Production</th>
<th>Intelligent Application &amp; UI Development</th>
<th>Fully Managed Secure IT Infrastructure</th>
<th>Global Support and Logistics</th>
<th>Systems Integration</th>
</tr>
</thead>
</table>
| - IMS data integrity and data intelligence  
- Data and scoring derivation  
- Open standards and flexible integration  
- Enrich insights across multiple data sources with contextual and ambient information | - Focus on continuous innovation  
- Extensive global 195+ patent portfolio  
- Extensive in-house graduate expertise  
- Machine learning, geospatial analytics, and intuitive human interaction | - System optimized embedded software  
- ISO 9000 / 14001 compliant  
- Privacy by design | - High-value applications for enterprise customers and end-users  
- Flexible GUI design with co-branding options  
- Mobile telematics applications and interfaces | - Scalable, redundant, private cloud architecture  
- Financial-grade end-to-end security  
- Private and public cloud options  
- At rest / in-transit AES-256 encryption | - Multilingual team  
- 7/365 day support  
- Tier-1, Tier-2, and Tier-3  
- Supply chain management with scalable 3PL | - Integrated management of wireless network connectivity  
- Seamless integration with external applications and IT infrastructure |
WARUC STEERING COMMITTEE

Frederic Charlier
CEO ClearRoad

Mahrokh Arefi; P.E./P.Eng
US CEO & Head of Global Business Development
emovis is the leading service delivery and technology arm of Abertis in the global markets for all electronic tolling and smart mobility solutions.

**Our vision**

We seek to offer safer, faster, more convenient and more comfortable travel for road users on highways around the globe to foster sustainable mobility.

The company is 100% owned by the world’s leader in highway concessions with more than 5,200 miles of roads under direct management.

---

**emovis facts**

- active in the U.S. for more than **40 years**
- integrates solutions for more than **7,000 equipped lanes**
- employs more than **800 tolling professionals**
- process more than **350 million** toll transactions each year
- serve **4.2 million toll customers** each year
Abertis: Global Toll Road Operator

- 41 concessions
- 14 countries
- 5,300 km managed
- 16,000 employees
- >1.16 Bn$ CAPEX/yearly
- 29 Bn$ assets managed
Long History in North America
We have a long history of RUC
Road User Focused Models

Providing more options to users

Unique features

- Collecting road tax via **Private and Public Service** at the same time
- **Multiple vendors approach** competing to attract motorists with value added services
- **Universal Service Operator** to ensure equity and fairness
- **Flat tax**: same rate for all users irrespective of the car models
The Future of Road Funding - Trends

- Innovation On All Fronts: Mobile Apps, Blockchain, Intelligent Roads, Connected Cars, Autonomous vehicles: emergence of new business models
- Rise of Mobility as a Service
  - Shift from ownership to usage based
  - Impacts to Infrastructure Managers To Meet New Road User’s Needs

Mobility of people and goods are more crucial than ever before: see our white paper report
Our Strategy:

- Focus on the customer experience & learning for all parties
- Leveraging the best companies in the market
- Provide flexible solutions to our Clients
EMOVIS SOLUTION FOR THE WARUC PROJECT
Solution Overview

MILEAGE REPORTING

ROAD CHARGE

CUSTOMERS

Government/
Road infrastructure

WA RUC
Road Usage Charge Back-Office

Full Back-Office ERP

- Billing
- Business intelligence
- Account Management
- Customer Management
- Logistics
- Finance
- E-mailing

Interoperability
- Interop. reporting
- State map matching
- Multi-currency

Customization
- Business rules
- Templates
- Content

Auditability & Compliance
- PCI-DSS
- PII / Data segregation
- Ad-hoc reports

Security & Reliability
- Encryption
- Redundancy
- Access profile management
Unified RUC Portal for Participants

Online Dashboard

> Self-care Account management
  - Review Account balance
  - View invoice
  - Update Participant’s info
  - Manage vehicle(s)

> User friendly and secure interface

Participant’s help desk
  - RUC dedicated team
  - U.S. based call center
Connected Car Experience – Automated Concept

Unlocking Data in the Vehicle – taking a user centric view.... Additional Services offered to participants....

User Privacy
- Ask for user consent
- Right for permanent data deletion
Odometer Reading Capture – Manual Concepts

Simple And Universal Solution

- No hardware to install
- No smartphone app to download
- No tracking
- Accessible to people without cellphones

> Odometer request every 3 months

No cellphone? No problem!
Participants can report their odometer in several DOL locations in WA
BACK-OFFICE DETOUR: IN-PERSON SUPPORT FOR MILEAGE PERMIT & ODOMETER CHARGE

Jeff Doyle,
Project Manager
D’Artagnan Consulting
IN-PERSON SUPPORT FOR TWO METHODS OF MILEAGE REPORTING

Purpose: Develop and test a RUC method for drivers who don’t have or prefer to use their mobile phone or automated device

Pilot objectives:
- Utilize existing vehicle licensing offices (DOL’s subagents) to provide the service
- Gather feedback from participants on the process
- Gather feedback from DOL subagents on the process
- Collect data to gauge cost of administering the system
BASIC NETWORK OF SUBAGENT SUPPORT

Recruit at least one subagent per pilot region. Potential locations:

- Bellingham
- Seattle (more than 1 location)
- Olympia/Lacey
- Vancouver
- Tri-Cities (no subagency in Walla Walla)
- Spokane
- Spokane Valley (near ID border)
# HOW IT WORKS

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Participant receives notification to submit odometer reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Participant walks in and asks to get their odometer read for the WA RUC pilot</td>
</tr>
<tr>
<td>Step 3</td>
<td>Subagent logs participant in and hands Participant iPhone</td>
</tr>
<tr>
<td>Step 4</td>
<td>Participant takes phone to car and takes a picture of their odometer</td>
</tr>
<tr>
<td>Step 5</td>
<td>Participant returns iPhone and checks out with subagent</td>
</tr>
</tbody>
</table>
SUBAGENTS WILL PREPARE THE PHONE TO TAKE THE ODOMETER PHOTO

- Customized version of web app for the subagent’s functionality in the WA RUC Pilot
- Subagent will be required to enter their subagent ID first time used
PARTICIPANT TAKES A PHOTO OF THEIR ODOMETER

- Once photo has been sent and verified, Participant is notified of successful WA RUC reporting
LUNCH BREAK
LIVE DEMO: MILEAGE REPORTING BY MOBILE PHONE

Fred Blumer,
CEO
Vehcon, Inc.
BACK-OFFICE DETOUR:
MANAGEMENT OF RUC DATA AND PARTICIPANT INFORMATION

Shannon Crum,
D’Artagnan Consulting
RPM SYSTEM

Challenge in prior RUC pilots: managing PII

State RUC Authority
- Sends pilot-related newsletters and other communications
- Maintains roster of all pilot participants

Pilot Help Desk
- Assists with pilot-related questions
- May be contacted by participant to update PII

Service Provider A
- Sends account information and invoices
- Maintains technical customer service line

Service Provider B
- Sends account information and invoices
- Maintains technical customer service line

Service Provider n
- Sends account information and invoices
- Maintains technical customer service line
RPM SYSTEM

RUCA

Service Provider Database
- Client Token
- User Tokens

RUC Participant via Web Browser
- Session Cookie

Service Provider Web Server

Service Provider Internal Applications

HTTPS

HTTPS + Client Token + User Token

Firewall / IP Whitelist

RPM API

User Authentication

RPM Applications

RPM Webhooks

RPM Database
- User Data
- Vehicle Data

BACK-OFFICE PERSPECTIVE
SINGLE SIGN-ON CAPABILITIES

- In addition to allowing near real-time synchronization of participant information, RPM allows the pilot to use a Single-Sign-On.
RPM SYSTEM

RUC Participant via Web Browser

Service Provider Web Server

Service Provider Internal Applications

Service Provider Database

Session Cookie

HTTPS

HTTPS + Client Token + User Token

User Login Server

Firewall / IP Whitelist

RPM API

User Authentication

RPM Applications

RPM Webhooks

User Data

Vehicle Data

RPM Database

RUCA
SINGLE SIGN-ON CAPABILITIES

- Participants use the same credentials for logging into emovis or DRIVESYNC (IMS).
RPM

• Participant credentials and contact information automatically move with them if they change Service Providers.

• RPM monitors vehicle registration with Service Providers
  • Easily identifies un-registered vehicles
  • Does not allow a vehicle to be registered with more than one Service Provider at the same time (or the same Service Provider twice)
BACK-OFFICE DETOUR:
MULTI-JURISDICTIONAL RUC FINANCIAL ACCOUNTING SYSTEM

Shannon Crum,
D’Artagnan Consulting
ROAD USAGE CHARGING – NATIONAL ACTIVITY

• Road usage charging is being looked at in several states across the country.

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

• Most important remaining task: let the public “test drive” RUC through a live pilot test (volunteer participants).
JURISDICTIONS COULD FORM BILATERAL AGREEMENTS TO DIRECTLY RECONCILE FUNDS…

And in a RUC system with 48 states, a network of 1,128 separate bilateral agreements is required…
JURISDICTIONS COULD ASK RUC SERVICE PROVIDERS TO COLLECT/DISTRIBUTE RUC TO STATES…

• In essence requires all states to contract with the same Service Providers
  ◦ Could limit competition and increase costs

• …or to enter into contractual relationships with Service Providers that are not active in their states for the purposes of collecting funds
Washington RUC Pilot is testing a model that:

- Does not require numerous bilateral agreements
- Is completely independent of Service Providers
- Can perform selected data management functions, potentially reducing the state’s administration costs
- Performs financial reconciliation of RUC among jurisdictions
  - Calculates RUC due to/from jurisdictions
  - Handles payments
• Open Data Design
• Data validation services
• Financial transaction tools
• Accepts/reports data from and to any jurisdiction, service provider
• Flexible data needs
  • Flexible reporting tools
During WARUC, testing concentrates on:

- Data Management
- Mileage Reconciliation/Accounting
- Modeling financial reconciliation between jurisdictions
  - “paper” reconciliation will occur among participating jurisdictions as a back-office exercise
  - True financial reconciliation between Oregon and Washington will be modeled
    - Small number of both OReGO participants and Washington volunteers will pay both Washington and Oregon RUC during the pilot
FINANCIAL RECONCILIATION BETWEEN OREGON AND WASHINGTON

Small number of both OReGO participants and Washington volunteers will pay both Washington and Oregon RUC during the pilot

- This small subset of pilot participants will be seeded with project funds, so there will be no cost to Washington volunteers, and no cost for Washington miles for OReGO volunteers
- Seeded funds will be “paid” back to the project as participants drive in neighboring states
**Washington RUC -- Functional View by System Component**

1. Data validation may result in iterative data loads to both RUCA db and RUC-HUB db by account managers. Generalized process is shown in "Data Validation -- AM to RUCA and HUB" flowchart.
HUB

- **Challenges:**
  - Legal authority for collection/remittance, governance, ownership, and structure of HUB entity, enforcement, operational
  - This pilot is not attempting to resolve these
    - Will document challenges and issues in final report
    - Will research and present possible solutions

- Testing specific “back-office” functionality of reconciling mileage data from multiple jurisdictions to calculate RUC due to/from jurisdictions, and modeling transfer of funds between them
PILOT PROJECT EVALUATION PLAN

- Evaluation Purpose
- Guiding Principles & Measures
- Pilot Evaluation Methods
- Next Steps
EVALUATION PURPOSE

- Address outstanding policy, public acceptance, and technical questions in a rigorous manner.
  - How does a road usage charge work for different drivers throughout the state?
  - How do the reporting methods work for drivers?
  - Will a road usage charge enable us to better fund our transportation system in the future?
- Pilot operations will generate information; the key will be to make it useful.
GUIDING PRINCIPLES & MEASURES

Established by RUC Steering Committee
<table>
<thead>
<tr>
<th>Guiding Principle</th>
<th>Evaluation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transparency</strong></td>
<td>1. Change in participant understanding of gas tax rate, collection method, and use</td>
</tr>
<tr>
<td></td>
<td>2. Change in participant understanding of RUC rate, collection method, and use</td>
</tr>
<tr>
<td><strong>Complementary policy objectives</strong></td>
<td>3. Impact of pilot on driving habits of participants</td>
</tr>
<tr>
<td></td>
<td>4. Impact of pilot on stated vehicle purchasing preferences of participants</td>
</tr>
<tr>
<td><strong>Cost-effectiveness</strong></td>
<td>No measures established</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>5. Total and per-mile gas tax vs. RUC paid by urban, suburban, vs. rural status of participant</td>
</tr>
<tr>
<td></td>
<td>6. Total and per-mile gas tax vs. RUC paid by participant income</td>
</tr>
<tr>
<td></td>
<td>7. Total and per-mile gas tax vs. RUC paid by in-state vs. out-of-state participants</td>
</tr>
<tr>
<td></td>
<td>8. Participant expectations and before-and-after perceptions of RUC equity relative to gas taxes</td>
</tr>
<tr>
<td><strong>Privacy</strong></td>
<td>9. Participant perception of privacy protection, including any changes in perception during the pilot</td>
</tr>
<tr>
<td></td>
<td>10. Relative ability of mileage reporting methods to protect participant privacy</td>
</tr>
<tr>
<td><strong>Data Security</strong></td>
<td>11. Participant perception of data security, including any changes in perception during the pilot</td>
</tr>
<tr>
<td></td>
<td>12. Relative ability of mileage reporting methods to provide data security</td>
</tr>
<tr>
<td><strong>Simplicity</strong></td>
<td>13. Time and indirect costs expended by participants to comply with pilot tasks</td>
</tr>
<tr>
<td></td>
<td>14. Participant understanding of compliance requirements</td>
</tr>
<tr>
<td>Guiding Principle</td>
<td>Evaluation Measures</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Enforcement</strong></td>
<td>17. Participant perceptions of relative effectiveness of enforcement methods in maintaining compliance</td>
</tr>
<tr>
<td></td>
<td>18. Reasons for non-compliance expressed by participants (e.g., confusion, negligence, fraud)</td>
</tr>
<tr>
<td></td>
<td>19. Participant-stated locations of fuel purchases (potentially only for interoperability participants)</td>
</tr>
<tr>
<td><strong>System Flexibility</strong></td>
<td>No measures established</td>
</tr>
<tr>
<td><strong>User Options</strong></td>
<td>20. Participant overall satisfaction and relative satisfaction with choices available in the pilot project</td>
</tr>
<tr>
<td></td>
<td>21. Reason for participant preferences of various mileage reporting methods</td>
</tr>
<tr>
<td><strong>Interoperability and Cooperation</strong></td>
<td>22. Description of assignment of responsibility and oversight for Washington agencies and other jurisdiction agencies involved in pilot</td>
</tr>
<tr>
<td></td>
<td>23. Participant understanding of interoperable RUC</td>
</tr>
<tr>
<td></td>
<td>24. Relative ease of compliance for interoperability test participants vs. others</td>
</tr>
<tr>
<td><strong>Phasing</strong></td>
<td>No measures established</td>
</tr>
</tbody>
</table>
PILOT EVALUATION METHODS

How will the pilot be evaluated?
EVALUATION METHODS

1. Participant Surveys
   1a. Participant Quick Polls
2. Participant Focus Groups
3. Pilot Data Analysis
4. Agency Interviews
5. Participant Case Studies
6. Scofflaw Test
7. Fuel Purchase Log Analysis
8. Policymaker Interviews
9. Steering Committee Facilitated Discussion
1. PARTICIPANT SURVEYS

**What:** Online surveys about RUC pilot experiences – mandatory as a pilot participant

**Who:** All pilot participants

**Purpose:**
- To learn about experiences with account set-up and other pilot components, as well as thoughts on policy questions
- Should allow for cross-tabs by geography and participant demographics
1A. PARTICIPANT QUICK POLLS

What: 1-2 quick online questions – voluntary participation

Who: Pilot participants

Purpose:

• To get a snapshot of what participants understand about various aspects of RUC policy, and transportation funding more broadly

• Answer questions as they come up
2. PARTICIPANT FOCUS GROUPS

**What:** Guided group conversations with participants about their pilot experiences

**Who:** Select group of pilot participants (same group each time)

**Purpose:** To learn about participant experiences and perceptions in more detail, and to measure changes in understanding over time
3. PILOT DATA ANALYSIS

**What:** Anonymized data collection

**Who:** All pilot participants

**Purpose:** To analyze RUC participants driving by geography and other factors
4. AGENCY INTERVIEWS

What: Conversations with partner agencies about RUC pilot

Who: Department of Licensing; Oregon Department of Transportation; WSDOT; WSTC; Surrey, British Columbia

Purpose:

• To learn about accountability, interoperability, and cooperation issues from the agencies

• Help evaluate responsibility and oversight questions
5. PARTICIPANT CASE STUDIES

**What:** One-on-one conversations with participants about their pilot experiences

**Who:** Select group of pilot participants from different locations and with different vehicles/driving habits

**Purpose:**
- To document and communicate individual stories of participant experiences
- Learn about changes in perception or behavior over time
6. SCOFFLAW TEST

**What:** Examination of the pilot design from a participant perspective to identify ways to evade RUC

**Who:** Researchers

**Purpose:** To learn about compliance and enforcement in a controlled environment without disrupting the pilot
7. FUEL PURCHASE LOG ANALYSIS

What: Fuel purchase analysis based on pilot participant-provided information

Who: Select group of participants who live near Oregon border

Purpose: To understand whether residents near a border purchase fuel on one side and primarily drive on the other
8. POLICYMAKER INTERVIEWS

What: One-on-one conversations about the RUC pilot experience

Who: Commissioners and elected officials who participated in the pilot

Purpose: To gather detailed feedback from policymakers about the pilot
9. STEERING COMMITTEE FACILITATED DISCUSSION

**What:** Focused discussions about RUC pilot with Steering Committee members

**Who:** Steering Committee members

**Purpose:** To gather feedback from members on their perceptions of the pilot experience and discuss policy questions
NEXT STEPS
NEXT STEPS

• Review and discussion today
• FINAL Evaluation Plan issued before December 1, 2017
• Some items may be scaled according to available budget
• Evaluation tasks begin in early 2018
DRAFT POLICY
ISSUE
RESEARCH
WORK PLAN

Travis Dunn,
D’Artagnan Consulting

• Summary of WA RUC Pilot Project
• Meeting Objectives
# SUMMARY OF POLICY ISSUES

<table>
<thead>
<tr>
<th>Address in conjunction with pilot launch</th>
<th>Address based on pilot findings</th>
<th>Address apart from the pilot test</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How to operationalize the four RUC operational concepts</td>
<td>• Driver reaction to the proposed RUC system</td>
<td>• Interoperability with GoodToGo toll system</td>
</tr>
<tr>
<td>• Whether and how to charge out-of-state drivers</td>
<td>• Public understanding and acceptance of the proposed system</td>
<td>• Legal issue: Interstate Commerce Clause</td>
</tr>
<tr>
<td>• Exemptions from road usage charges for demonstration</td>
<td>• State information technology (IT) needs</td>
<td>• Legal issue: 18th Amendment</td>
</tr>
<tr>
<td>• Refunds</td>
<td>• Institutional roles in implementing any future RUC system</td>
<td>• Per-mile rate setting process and roles</td>
</tr>
<tr>
<td>• Use of private sector account managers</td>
<td></td>
<td>• Motor fuel tax bond requirements</td>
</tr>
</tbody>
</table>

- Permanent exemptions
- Use or dedication of RUC revenue
- Rate setting basis for time-based permit
- Transition strategy - vehicles subject to paying RUC
- Interoperability with other states
ISSUES TO ADDRESS IN CONJUNCTION WITH PILOT LAUNCH
OPERATIONALIZING RUC CONCEPTS

• Identify legal and policy requirements of operational concepts being tested

• Develop alternative definitions

Examples:

• Definition of chargeable events
• Basis for distance measurement
• Enforcement of selection of a reporting method
CHARGING OUT-OF-STATE DRIVERS

- Define charging policy based on concepts tested for out-of-state drivers
- Gather feedback from pilot to inform alternatives

Examples:
- Require all visitors to report mileage; provide choices
- Optional mileage reporting with gas tax as back stop
RUC EXEMPTIONS

- Define range of possible exemptions categorized by type, location, vehicle type, special factors
- Examine merits and drawbacks of exemptions based on justifications

Examples:
- Off road miles
- Emergency vehicles
- Agricultural vehicles
**RUC REFUNDS**

- Define range of possible refunds by category
- Examine merits and drawbacks of exemptions based on justifications

**Examples:**
- Prepaid, unused mileage
- Exempt road use by vehicles without automated reporting
- Gas tax
USE OF PRIVATE SECTOR SERVICE PROVIDERS FOR RUC COLLECTION

- Define range of delivery models for RUC provision, organized by function
- Examine merits and drawbacks of each approach

Examples:
- Agency delivered function
- Contract with one or more private providers per function
- Open market for one or more functions
ISSUES TO ADDRESS BASED ON PILOT FINDINGS
**DRIVER REACTION TO PROPOSED RUC SYSTEM**

- Based on pilot participant feedback, prioritize possible features to establish in policy
- Analyze trade-offs of prescribing in statute vs. in regulation vs. leaving open

**Examples:**
- Payment methods
- Invoice or account statement contents
- Enrollment process
PUBLIC UNDERSTANDING AND ACCEPTANCE

• Analyze pilot participant feedback to discern which pilot features improve understanding and/or acceptance of transportation funding

• Prioritize acceptance factors

Examples:
• Automation/technology
• Integration with other services
• Customer service quality
STATE IT NEEDS

• Based on pilot experience, describe state agency IT gaps
• Analyze merits of alternative approaches to fulfilling IT needs

Examples:
• Customer account management
• Integration with DOL vehicle registry
• State accounting system
INSTITUTIONAL ROLES

- Based on organizational design work, present policy alternatives for authorizing agencies to implement RUC
- Analyze opportunities for and barriers to effective delivery

Examples:
- Authority for RUC collection
- Authority for RUC enforcement
- Ability to share information, roles across agencies
ISSUES TO ADDRESS APART FROM THE PILOT
INTEROPERABILITY WITH STATE TOLLING

- Identify shared user-facing functions
- Examine back-office implications of various levels of coordination, integration

Examples:
- Enrollment
- Customer account management
- Payments
LEGAL ISSUE: INTERSTATE COMMERCE CLAUSE

• Analyze constitutional protections related to collection methods
• Analyze constitutional protections related to rate setting

Examples:
• Requirements on or options for mileage reporting for visitors
• Enforcement of payment for visitors
LEGAL ISSUE: 18TH AMENDMENT

- Document legal principles of 18th amendment
- Develop statutory or constitutional alternatives for application to RUC; analyze implications of each

Examples:
- Constitutional restriction on RUC similar to gas tax
- Statutory protections on RUC similar to gas tax

Pre-launch | Live pilot | Post-pilot
PER MILE RATE SETTING PROCESS AND ROLES

- Describe analytical approaches for rate setting
- Describe processes for rate setting
- Analyze approaches and processes

Examples:
- Revenue-neutral with or without factors
- Cost allocation basis
- Utility commission approach
MOTOR FUEL TAX BOND REQUIREMENTS

- Build on previous work of Steering Committee and Treasurer’s Office
- Outline approaches for dealing with MVFT bonds under various RUC transitions and analyze impacts

**Examples:**
- Keep fuel tax in place to service current bonds outstanding
- Refund bonds
- Make debt service payments with RUC
PERMANENT EXEMPTIONS

- Define range of possible exemptions categorized by type, location, vehicle type, special factors
- Examine merits and drawbacks of exemptions based on justifications

Examples:
- Off road miles
- Emergency vehicles
- Agricultural vehicles
USE OR DEDICATION OF RUC REVENUES

- Develop range of options for RUC revenue
- Develop criteria that legislature may wish to weigh in deciding use of revenues

Examples:
- 18th Amendment-type restrictions
- Restricted to transportation uses
- No restrictions
RATE SETTING BASIS FOR TIME-BASED PERMIT OPTION

- Highlight challenges with rate setting for time-based RUC permits
- Develop various approaches to rate setting and analyze their impacts

**Examples:**
- Price equal to RUC for average mileage driver
- Price set at 99th percentile mileage
- Available only for special classes of vehicles
TRANSITION POLICY

- Develop transition approaches
- Analyze the revenue, operational, cost, and policy impacts of each

Examples:
- Switchover fleet at once
- Gradual transition of new vehicles
- Gradual transition of high MPG vehicles
INTEROPERABILITY WITH OTHER STATES

• Outline alternatives for interoperating with other states: procurement, operations, data and financial clearing

• Analyze viability and effectiveness of each approach

Examples:
• Closed system
• Coordinate via data and/or financial clearinghouse
• Shared operations
PILOT PROJECT SCHEDULE & MILESTONES

Jeff Doyle, Project Manager
D'Artagnan Consulting

- Summary of WA RUC Pilot Project
- Meeting Objectives
SNAPSHOT OF PROJECT DELIVERY SCHEDULE

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
KEY PROJECT MILESTONES, THROUGH 2017

- Decision by FHWA on Round 2 STSFA Grant Funding – AWARDED -- (funds live pilot, evaluation and reporting)

- Web site refresh goes live

- Launch participant recruitment activities
  - Testing of all devices, account services and customer interface/support
  - Provide active assistance to British Columbia and Idaho participants
  - Establish partnerships with DOL agents/subagents located near participants that choose in-person odometer validation method
OTHER NOTABLE ACTIVITIES

• Continued coordination with Oregon DOT to establish parameters for financial interoperability test
• Outreach to stakeholders, responding to media requests
• Organizational Design analysis in Stage 2
PUBLIC COMMENT
THANK YOU

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