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# Pilot Participant Experience & Review of TAC Design Recommendations

Jeff Doyle and Travis Dunn

Agenda Item #8

TAC Meeting #9, September 16, 2015

Eureka, CA



# Agenda

- ◆ **Pilot Purpose**
- ◆ Summary of TAC Design Recommendations
- ◆ Walk-Through of Pilot Based on TAC Design Recommendations
- ◆ New Recommendations
- ◆ Finalize Recommendations



## Purpose of the Pilot Project

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- ◆ **SB 1077:** “*identify and evaluate issues*” related to the potential implementation of a road charge in California
- ◆ **TAC:** Consult with stakeholders and the public, study road charge concepts, recommend pilot design and evaluation criteria



## September TAC Meeting Objectives

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- ◆ Walk through the pilot as it stands based on design recommendations to date
  - ✧ User perspective
  - ✧ System perspective
  
- ◆ Affirm or revise design recommendations
  - ✧ TAC recommendations are noted throughout the walk-through
  - ✧ Some decisions will be made today



## Summary of Evaluation Criteria

Category	Number of goals	Number of pilot evaluation criteria
1. Revenue	2	4
2. Cost	4	5
3. Operations	8	12
4. User Experience	6	12
5. Privacy	6	4
6. Data Security	4	6
7. Equity	5	6
8. Communications	1	3
<b>Total</b>	<b>36</b>	<b>50</b>



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## TAC Decisions To Date

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- ◆ **The pilot will offer a choice in account managers.**  
*More than one non-state account manager will be available for pilot participants to choose from.*
- ◆ **The pilot will offer drivers a choice in mileage recording methods.**  
*Methods under consideration for the pilot include time permits, mileage permits, odometer charges (prepay and postpay), automated distance charging without location information, and automated distance charging with location information.*
- ◆ **Out-of-state vehicles will be included in the pilot and simulate payment for driving on California roads.**  
*Drivers from neighboring states who drive regularly on California roads will be recruited to participate in the pilot.*

**1) Account manager choice**

**2) Reporting method choice**

**3) Out-of-state**



## TAC Decisions To Date (continued)

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- ◆ **The pilot will test an open system design.**

*Security standards and privacy protection will be required, and data content messaging formats between service providers and the state may be defined. However, the system will otherwise be defined in a way that is technology neutral and allows entry of multiple operational concepts, technologies, and service providers.*

**4) Open system**

- ◆ **The pilot will test the interoperability of California's system with that of other states.**

*In the event another state does not have a pilot operational concurrent with California's, interoperability will be simulated using account managers.*

**5) Interoperability**

- ◆ **The pilot will include individuals, households, businesses, and at least one government agency.**

*This represents the diversity of vehicle ownership types most common in California.*

**6) Owner types**



## TAC Decisions To Date (continued)

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- ◆ The pilot will include a cross-section of vehicles that are reflective of the fleet currently using California's public road network.

*The pilot will recruit a variety of vehicles with the goal of forming a vehicle pool that reflects the diversity of the fleet currently using California roads.*

- ◆ The pilot will offer methods to exempt miles driven on private roads or out-of-state.

*Both manual and automated options for claiming mileage exemptions will be tested.*

- ◆ The pilot will feature three approaches for protecting privacy: governance, accountability, and legal protection.

*The TAC adopted privacy principles (governance), evaluation criteria (accountability), and privacy protection provisions (legal protection).*

**7) Vehicle types**

**8) Mileage exemptions**

**9) Privacy protection**



## TAC Decisions To Date (continued)

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- ◆ The pilot will be evaluated according to criteria recommended by the TAC.

*The 50 evaluation criteria adopted by the TAC span 8 categories.*

- ◆ The pilot will feature eight data security provisions.

*Provisions relate to Authentication; Authorization; Data Masking; Data Modification Notification; Data Destruction; Data Transmittal; Data Storage; and General IT Network Security.*

**10) Evaluation  
criteria**

**11) Data  
security**



## Today's Decisions

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1. **Affirm or revise** all previous recommendations, including:
  - a. Include commercial vehicle technology?
  - b. Include or exclude pre-pay odometer charge?
  
2. **Resolve** outstanding pilot design recommendations:
  - a. What, if any, enforcement aspects?
  - b. What, if any, simulated payment options?



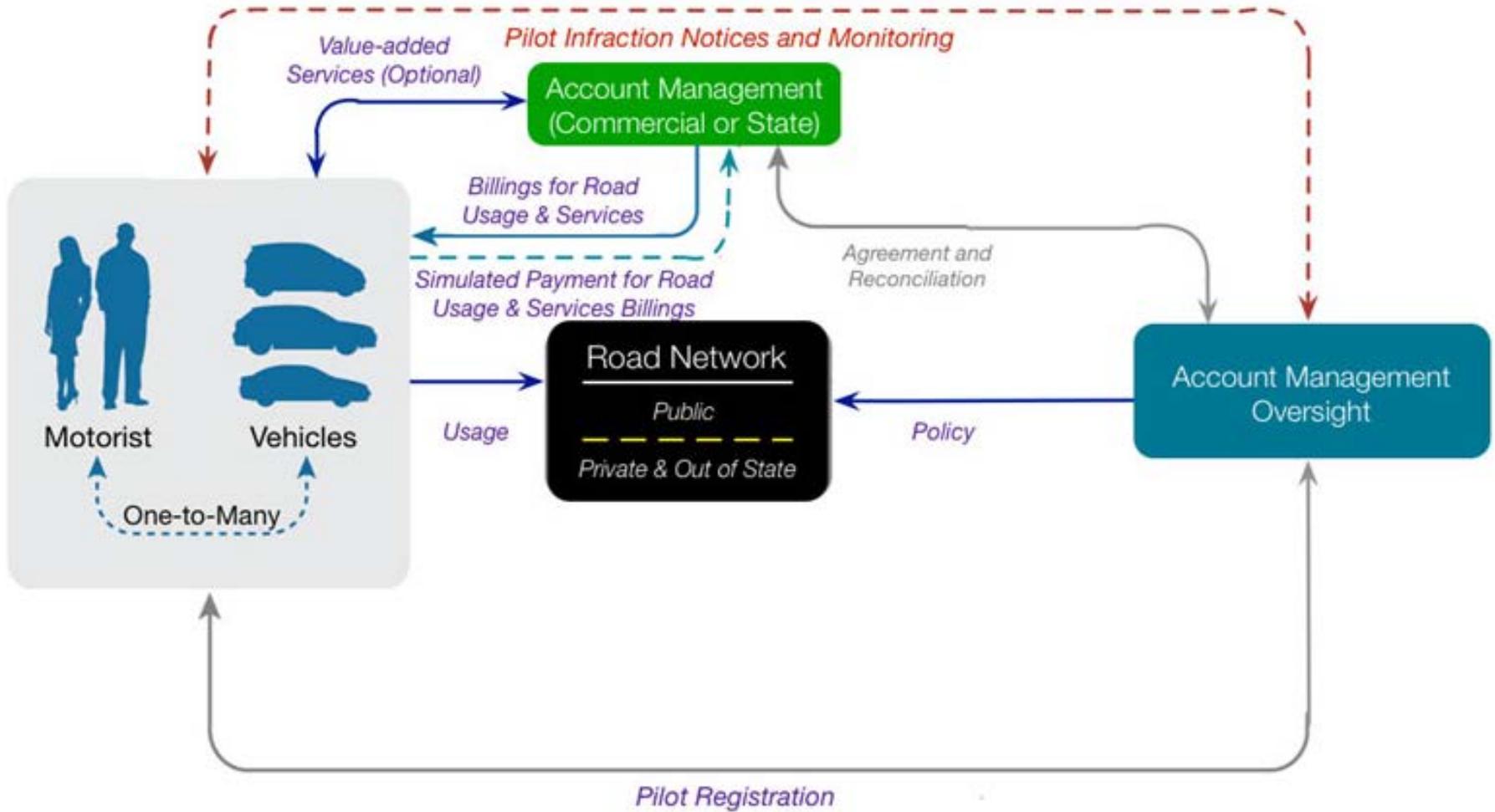
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# Pilot Design Overview



# Participant Recruiting and Signup



# Participant Recruiting and Signup



## PILOT VOLUNTEERS



# Participant Matrix

Commercial Vehicles (Businesses)		North	Central	South	Trucks	
		 100	 50	 175	 50 	
Private Vehicles (Individuals & Households)					Other	
Urban & Suburban	 \$	475	175	1050	   125	
	 \$\$	475	175	1050		
Rural & Agricultural	 \$	200	200	150		
	 \$\$	200	200	150		



# Participant Recruiting and Signup

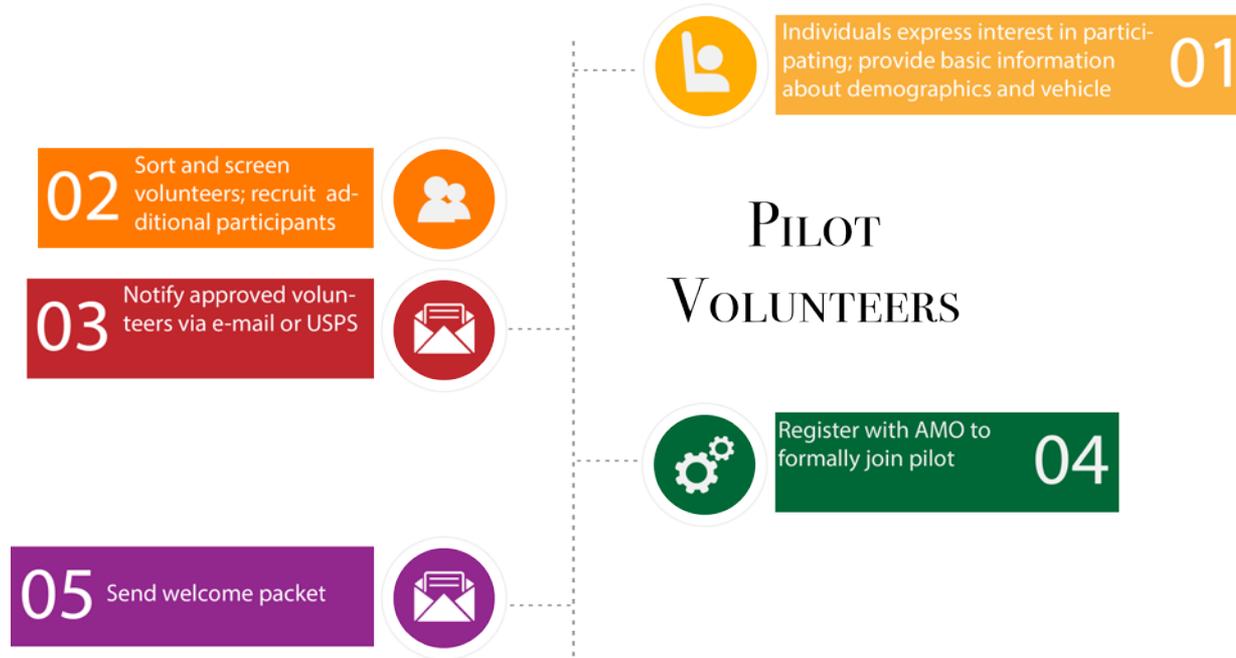


# Participant Welcome Packet

<p><b>1</b> Welcome Letter</p>	<p>Welcome to the Road Charge Pilot</p>
<p><b>2</b> Pilot Schedule</p>	<p>Pilot Project Schedule -- Start/End dates Survey Periods</p>
<p><b>3</b> Reporting Options</p>	<p>Descriptions of Available Operational Concepts and Account Managers Instructions for Getting Started</p>
<p><b>4</b> Working w/ Account Managers</p>	<p>Explanation of mock-payment methods Detailed instructions for changing Account Managers</p>
<p><b>5</b> Volunteer Support</p>	<p>Contact info Where to get help Frequently Asked Questions (and answers) about participating in the California Road Charge Pilot</p>



# Participant Recruiting and Signup



# Participant Choice: Step 1

## Pay only for miles driven on CA roads

- Fuel tax refund
- Off-road and out-of-state miles are free
- GPS required



## Pay for all miles you drive

- Fuel tax refund
- Technology optional
- GPS not required



## Pay upfront for all-you-can-drive

- No fuel tax refund
- Price based on XX,000 miles/year
- Mileage reporting not required



## Participant Choice: Step 2

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Pay only for miles driven on CA roads

Pay for all miles you drive

Pay upfront for all-you-can-drive

OBD-II with location  
[CAM]

Smartphone  
switchable [CAM]

Telematics switchable  
[CAM]



## Participant Choice: Step 2

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Pay only for miles driven on CA roads

Pay for all miles you drive

Pay upfront for all-you-can-drive

Mileage permit [SAM]

Odometer charge [CAM]

OBD-II without location [CAM]



## Participant Choice: Step 2

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Pay only for miles  
driven on CA roads

Pay for all miles you  
drive

Pay upfront for all-  
you-can-drive

Time permit [SAM]

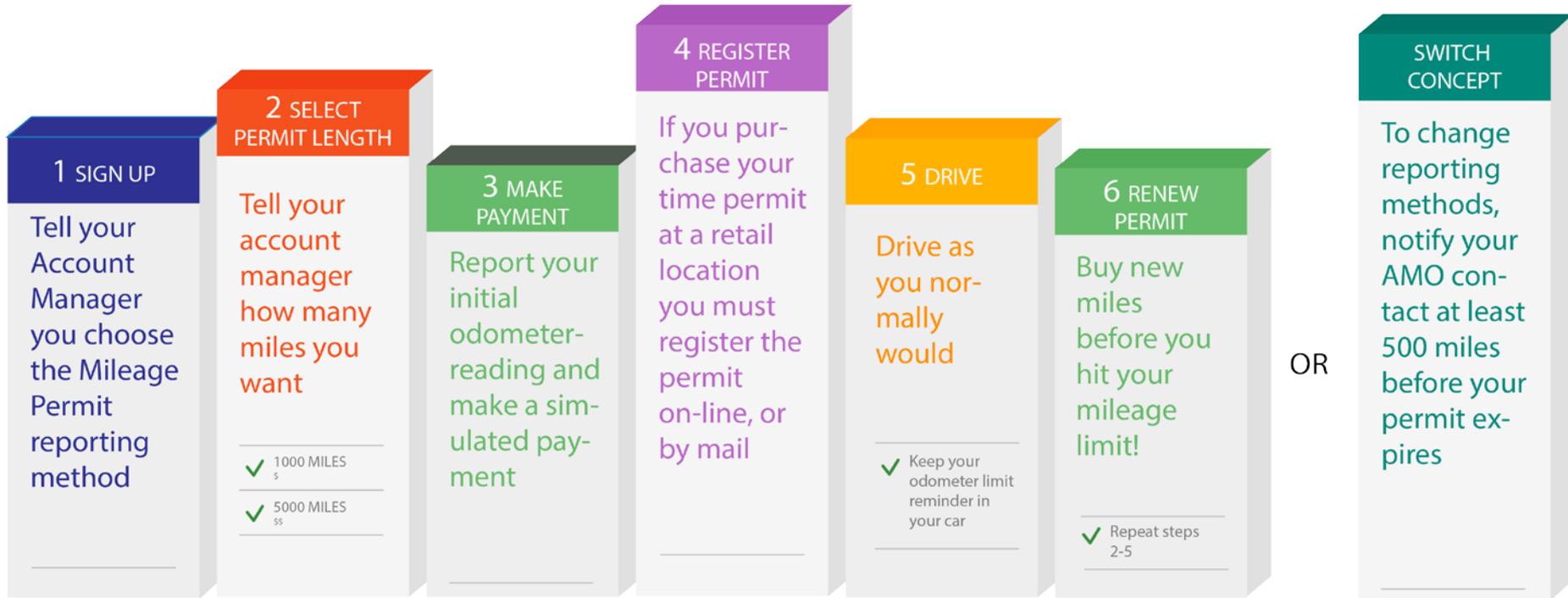




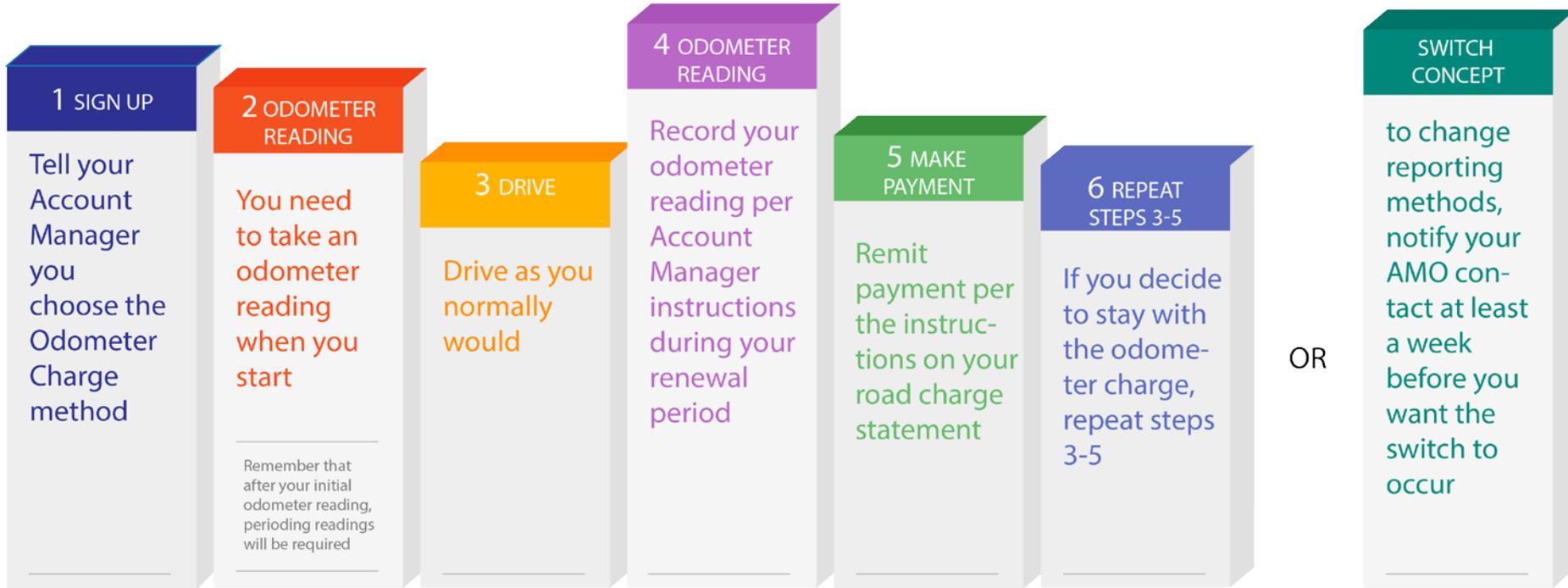
## AUTOMATED DISTANCE MEASUREMENT INSTRUCTIONS



# MILEAGE PERMIT INSTRUCTIONS



# ODOMETER CHARGE INSTRUCTIONS



# Manual Mileage Exemption Claims

FORM SCGR-1 (Rev. May 2015)

**GASOLINE TAX REFUND CLAIM**

State of California

Reset

Print

Send completed forms to:  
 California State Controller's Office  
 Tax Administration Section  
 P.O. Box 942850  
 Sacramento, CA 94250-5880

For SCO Use Only

Claim No./Received Date

STD. 204 Form on File  First-Time Claimant  Renewal Claimant  Address Change  SCO Account No. \_\_\_\_\_

1. Name of Claimant \_\_\_\_\_ Federal Tax ID No. / SSN \_\_\_\_\_
2. Mailing Address  
 Street Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
3. Location of Operation  
 Street Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
4. Contact Information  
 Telephone Number - include area code (\_\_\_\_\_) (\_\_\_\_\_) Fax Number - include area code (\_\_\_\_\_) (\_\_\_\_\_) E-mail Address \_\_\_\_\_
5. Calendar Year \_\_\_\_\_ Filing Period: (See instructions) From \_\_\_\_\_ To \_\_\_\_\_

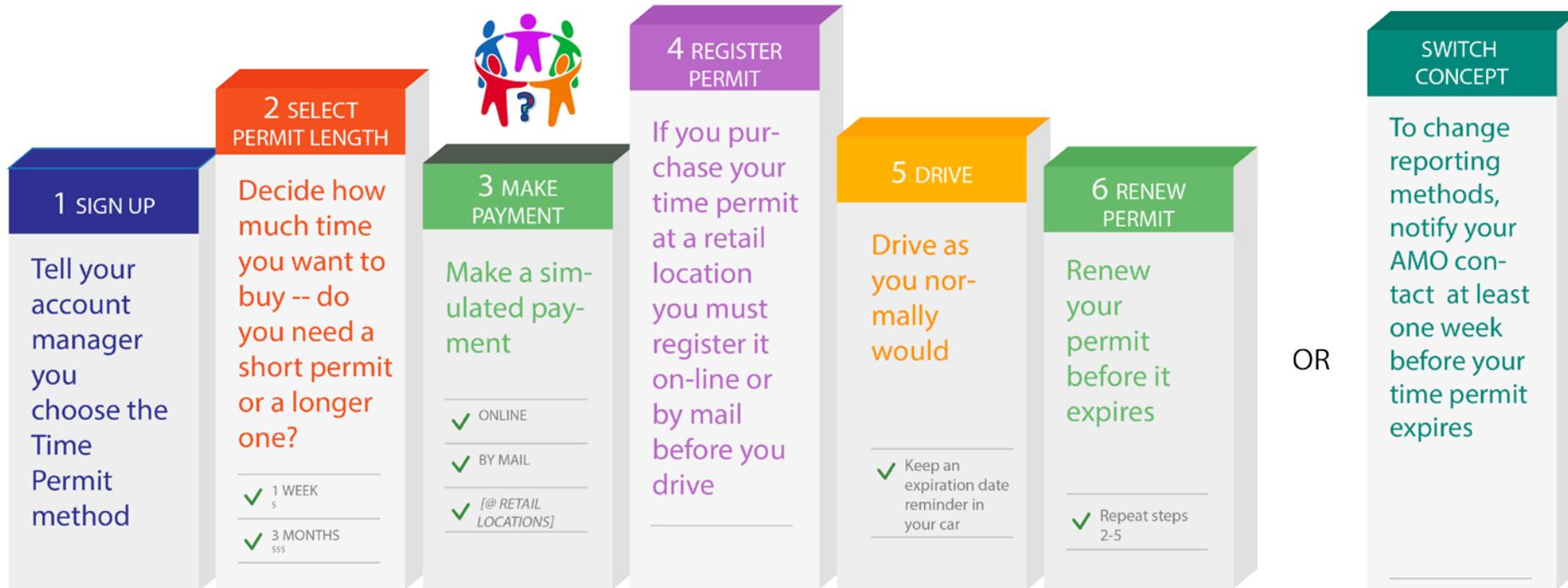
**READ INSTRUCTIONS BEFORE PREPARING CLAIM – Type or Print Clearly**

REFUNDABLE GALLONS / AMOUNT CLAIMED	GALLONS	DOLLARS
Refer to <a href="http://www.sco.ca.gov">www.sco.ca.gov</a> for the current rate, or \$0.06 if Paratransit		
	<i>(Round to Whole Gallons)</i>	
6. FUEL PURCHASED (Enter total from Schedule A).....	_____	
<small>(If the inventory method is used, enter the amount from Schedule D, Line 12)</small>		
7a. REFUNDABLE FUEL (Purchased prior to July 1st).....	_____	x _____ = \$ _____
<small>(If the inventory method is used, enter the amount from Schedule D, Line 10) (enter gasoline portion only)</small>		
7b. REFUNDABLE FUEL (Purchased on or after July 1st).....	_____	x _____ = \$ _____
<small>(If the inventory method is used, enter the amount from Schedule D, Line 10) (enter gasoline portion only)</small>		
8. NON-REFUNDABLE FUEL (Subtract lines 7a and 7b from line 6) .....	_____	
<small>(enter ethanol portion only)</small>		
9. REFUND CLAIMED .....		\$ _____

10. Type of Operation:
  - Individual Driving on a Military Installation:  Personal Vehicle  Government Vehicle
  - Blended Fuel Producer:  Highway Use  Gas Station
  - Export to other State/Country \_\_\_\_\_
  - Public Transportation/Paratransit: Contract Expires \_\_\_\_\_
  - Vessel:  Private Property  Beyond 3 Mile Limit: Location Where Vessel Launched \_\_\_\_\_
  - Farm/Ranch: No. of acres \_\_\_\_\_
  - Other: Describe \_\_\_\_\_ (Attach additional page if needed)
11. Method(s) Used to Determine Refundable Gallons:  Specific  Percentage  Inventory (Schedule D Required)
  - Describe \_\_\_\_\_



# TIME PERMIT INSTRUCTIONS



# Participant Close-Out

REGARDLESS OF THE REPORTING METHOD YOU WERE TESTING, REPORT YOUR FINAL ODOMETER READING TO YOUR ACCOUNT MANAGER

On the last day of the pilot, report your odometer reading on your account manager's website or by mail.



IF YOU WERE TESTING THE ODOMETER CHARGE, MAKE YOUR FINAL PAYMENT

Shortly after reporting your final odometer reading, you will receive a final invoice for your odometer charge. Please remit a simulated payment.



RETURN THE OBD-II METER ISSUED BY YOUR ACCOUNT MANAGER

If you tested one of the mileage meters that plugs into your car's OBD-II port, please return it to your account manager.



IF YOU WERE TESTING THE AUTOMATED DISTANCE CHARGE, MAKE YOUR FINAL PAYMENT

Shortly after the last data collection day of the pilot, you will receive a final invoice for your road charge. Please remit a simulated payment.





# Interoperability

From:  
 Sanef S.A.  
 8130 SW Beaverton-Hillsdale Hwy  
 Portland, Oregon  
 97225

On Behalf of:  
 Road Usage Charge Pilot Program  
 355 Capitol St. NE MS 32  
 Salem, Oregon  
 97301-3871



To:  
 Jeff Doyle

Account No: 1385021-USD  
 Statement Month: January 2013  
 Issue Date: Feb 5 2013

## **ROAD USAGE CHARGE PILOT PROGRAM** **ACCOUNT STATEMENT**

Item Description	Amount	Rate (\$)	Subtotal
Vehicle: Acura MDX License Plate Number: PLAN: ADVANCED			
Mileage Tax			
Total Mileage	1196.80 miles		
Washington Taxable Miles	1179.00 miles	\$0.0187	22.05
Fuel Tax Refund	65.51 gals	\$0.3750	-24.58
		<b>Subtotal</b>	<b>-2.53</b>
		New charges / credits this month	<b>-2.53</b>
		Your total account balance	<b>-6.76</b>

**As you have a credit balance there is nothing for you to pay.**  
**No actual refunds are due to RUCPP participants outside of Oregon. This statement is for information only.**



# Operational Concepts for Trucks

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- ◆ **CA-domiciled interstate heavy trucks already required to report to IFTA and IRP**
  - ✦ Odometer charge (similar to IFTA/IRP reporting)
  - ✦ Automated distance charge with location
- ◆ **Out-of-state interstate heavy trucks already required to report to IFTA and IRP**
  - ✦ Odometer charge (similar to IFTA/IRP reporting)
  - ✦ Automated distance charge with location
- ◆ **Entirely in state heavy trucks**
  - ✦ Time permit
  - ✦ Odometer charge
  - ✦ Automated distance charge with location
- ◆ **Medium trucks**
  - ✦ Time permit
  - ✦ Odometer charge
  - ✦ Automated distance charge with location



# Privacy Principles

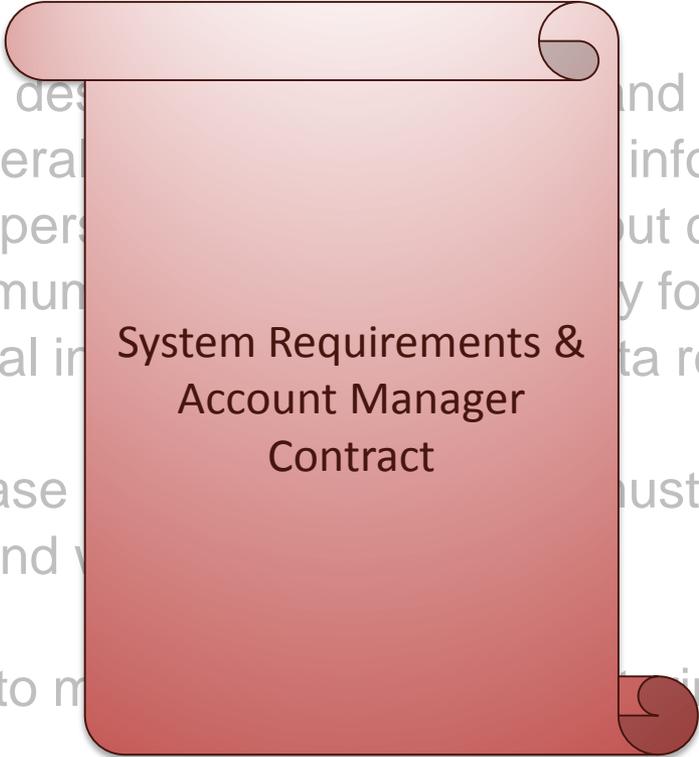
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1. Respect privacy interests pursuant to the California Constitution
2. Offer a time-based option
3. Allow motorists choice in mileage reporting methods
4. Transparency in design, implementation, and administration
5. Comply with federal and state privacy and information security laws
6. Do not disclose personal information without consent
7. Collect the minimum information necessary for proper operations
8. Remove personal information from any data retained beyond the minimum
9. Consent to release personal information must be clear, unambiguous, and written
10. Do not require use of specific locational information
11. Allow motorists to monitor collection and storing of their personal data
12. Investigate potential errors identified by motorists and make corrections



# Privacy Principles

1. Respect privacy interests pursuant to the California Constitution
2. Collect personal information for a limited purpose
3. Use personal information only for the purposes for which it was collected
4. Transparency in design and administration
5. Comply with federal and state information security laws
6. Do not disclose personal information without consent
7. Collect the minimum information necessary for proper operations
8. Remove personal information retained beyond the minimum
9. Consent to release of personal information must be clear, unambiguous, and voluntary
10. Provide a mechanism for individuals to access, correct, or delete their personal information
11. Allow motorists to manage their personal information
12. Investigate potential errors identified by motorists and make corrections



# Data Security

## Data Access

1. Authentication: minimum of 8-character passwords, letters and numbers, one capital, require periodic password change
2. Authorization: for pilot p user roles of CSR, Enfor rights to PII access. Provide at least
3. Data Modification Notification via e-mail or text message
4. Data Masking: at a minimum payment and VINs

## Data Storage

5. Encryption: use 256-bit AES
6. Data Storage: use 256-bit A p data; at Account Manager and Account Management Overs Mileage buckets
7. Data Transmittal: use mileag data to CAMs; use 256-bit AES

## Data Destruction

8. Data Destruction: opt-in opti analysis
  - ✦ For those who do not opt-in days after latest of simulated payment processing, dispu investigation
  - ✦ Data on devices destroyed rived from account manager

System Requirements &  
Account Manager  
Contract

## General IT Network Security

9. General IT Network Security: use ISO 27000 best practices
10. Third-Party Review: engage a third-party entity to review the security practices of the pilot



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# 1. Enforcement

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- ◆ **Meeting on September 2, Subcommittee Chairman Wachs stated:**
  - ✦ Asking some participants to act as violators is contrived
  - ✦ A pilot may not be most appropriate venue for testing enforcement against real fraud and evasion attempts
  - ✦ Saying that the pilot tested enforcement would not be accurate
  
- ◆ **After some discussion, the Subcommittee agreed:**
  - ✦ Do not ask any motorists to act as violators
  - ✦ Do not send “violation notices” or receive responses to them
  - ✦ Account managers should thoroughly investigate any anomalous data, potentially by calling the motorist to discuss the data
  - ✦ Instead of calling such activities “Enforcement,” call these activities “Checking for Anomalies”



# Policy Question and Subcommittee Recommendations: Enforcement

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What type of enforcement activities should be demonstrated in the pilot?

*The Subcommittee recommends that the following approaches to checking for anomalies be demonstrated during the pilot. Words altered from the original Staff recommendations are presented in bright red underlined text.*

1. **Checking for Anomalies**: The Account Management Oversight (AMO) entity should be ultimately responsible for checking for anomalies in mileage data.
2. **Testing Enforcement**: Do not test enforcement mechanisms in the pilot, but continue to check for anomalies in mileage data.



# Policy Question and Subcommittee Recommendations: Enforcement

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- 3. Administering Time Permits:** Use only electronic registration, with renewal reminders by email or text; and provide a 7-day grace period for renewals.
  
- 4. Administering Mileage Permits and Odometer Charges:** Mileage Permit readings should be taken three times in the pilot, and four times for Odometer charges; each method should receive reminder notices 1-2 weeks prior to a reading due date; and each method should be entitled to a mileage “grace” of 300-miles. Neither of these methods should be provided for out-of-state vehicles.
  
- 5. Detecting Odometer Fraud:** Odometer rollback will not be tested in the pilot.
  
- 6. Detecting Violations in Automated Distance Reporting:** Review electronic logs to detect possible anomalies.



# Policy Question and Subcommittee Recommendations: Enforcement

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7. **Anomaly Investigation**: Account managers assigned duty to resolve minor issues and report to Account Management Oversight entity.

8. **Issuance of Infraction Notices**: No infraction notices will be issued during the pilot.

*Original staff recommendation #9 rendered moot if no infraction notices sent.*



# Policy Question and Staff Recommendations: Simulated Payment Options

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What simulated payment options (if any) should be demonstrated in the pilot?



- ◆ Online
- ◆ Mail
- ◆ Retail

*Staff recommends that the following payment options be simulated during the pilot:*

- ◆ **Online**
- ◆ **Mail**

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# Open Discussion

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