

Memorandum

To: CHAIR AND COMMITTEE MEMBERS
CALIFORNIA ROAD CHARGE TECHNICAL
ADVISORY COMMITTEE

TAC Meeting: April 24, 2015

Reference No.: 4.b
Action Item

From: NORMA ORTEGA
Chief Financial Officer

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Road Charge Pilot Program

Subject: **Updates of On-Going Work – Research Opportunities**

ISSUE:

At the March 27, 2015 Technical Advisory Committee (TAC) meeting, the California Department of Transportation (Caltrans) informed the TAC of possible research opportunities that could be performed by a select group of California universities through the Caltrans Division of Research, Innovation and Systems Information. The TAC requested that Caltrans provide the following:

1. An inventory of all active road charge related research efforts that are currently underway;
2. Offer a list of potential research items for the TAC to consider.

Furthermore, Caltrans would like to inform the TAC of road charge related research that is being considered through the Western Road Usage Charge Consortium (WRUCC), of which Caltrans is a member. WRUCC is a gathering of twelve Departments of Transportation within the western United States with the purpose of studying road charge issues through pooled resources and knowledge transfer.

UPDATE:

Active Research Efforts through Caltrans:

- Research Title – *Is there a correlation between household income and household vehicle fuel economy in the US and specifically in California?*
 - Institution – CSU, San Jose (Mineta Transportation Institute)
 - Objective – Determine the degree to which a household's income is indicative of the type of vehicle(s) owned/used by the household.
 - Completion – TBD
- Research Title – *What do Americans think about federal tax options to support public transportation?*
 - Institution – CSU, San Jose (Mineta Transportation Institute)
 - Objective – Determine patterns of support and relative preferences among different transportation tax options.
 - Completion – April 2016

- Research Title – *Effectiveness of state and local incentives on ownership of alternative fuel vehicles?*
 - Institution – UC Berkeley (Center on Economic Competitiveness in Transportation)
 - Objective – Effectiveness of government policies to influence behavior.
 - Completion – March 2016

Potential Research Efforts through Caltrans:

- Sentiment of owners of electric and hybrid vehicles paying their fair share for roadway maintenance.
- Equity implications between two or more road charge concepts.
- What is the household gas tax percentage as it relates to household income?
- Encryption necessary to protect a mileage message from personally identifiable information capture.
- Growth of telematics and connected vehicles (through 2055)

Research Projects Underway through Western Road Usage Charge Consortium:

- 2014 Committed Projects:
 1. Critical Examination of Oregon Road Charge Program
 2. Addressing Out-of-State Drivers in a Road Charge System
 3. Web-based Cost of Road Charge Calculator
 4. Effects of Road Charge on Rural Residents
 5. Impacts of Changing Vehicle Fleet Fuel Economy on State Transportation Funding
 6. Roadmap for State Consideration of a Road Charge System
 7. Road Charge Communications Task Force
- 2015 Proposed Projects:
 1. Public Acceptance of RUC (Rural Focus)
 2. Privacy (Public Expectation & Solutions)
 3. Enforcement Policy Options
 4. Gas Pump Payment Options
 5. External Certification Process Available to Multiple States
 6. Road Charge Regional Pilot Plan

RECOMMENDATION

The listing of topics under the title Potential Research Efforts through Caltrans are provided for TAC consideration and does not represent an exhaustive list of possible research topics. The TAC will need to prioritize their research interests to accommodate potential budget and schedule constraints. Furthermore, all research efforts must be identified by June 2015 in order to inform the design recommendations process.