

California Road Charge Program Annual Report – Fiscal Year 2018



Submitted By:

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Purpose

This is the second annual report, required under Section 5(b) of the FAST Act, STSFA grant agreement entered into between FHWA and the California Department of Transportation (Caltrans). This report describes how the demonstration activities carried out in the year of 2018 with grant funds meet the objectives of the FAST Act STSFA Program.

Background

California's Road Charge Pilot Program (RCPP)

As California and the entire nation transition away from fossil fuels, we cannot continue to rely solely on the gas tax to fund the maintenance and operations of our vital transportation system. Beginning in 2013, California initiated investigations into a mileage-based user fee. In September 2014, the citizens of California passed legislation to conduct a pilot testing road charge as an alternative to the gas tax. And in early 2017, Californians voted in favor of the Road Repair and Accountability Act of 2017 (Senate Bill 1, Statutes of 2017, Beall), designed to address the state's transportation infrastructure repair and maintenance needs.

The passage of the Road Repair and Accountability Act provided California the opportunity to thoughtfully develop a sustainable, equitable transportation revenue mechanism to eventually replace the gas tax. Furthermore, California rejected the gas tax repeal effort by voting "No" on Proposition 6 in November 2018, thus reinforcing Californians' desire for funding our roadways.

The Road Charge Program has continued to research the key topics outlined in the STSFA goals including minimizing administrative costs of a road charge system, understanding and enhancing public perceptions of transportation, and demonstrating potential road charge technology mechanisms to ease future adoption.

FHWA FAST Act STSFA Grant Awards

Caltrans was awarded federal grant funding from the Federal Highway Administration (FHWA) under the Fixing America's Surface Transportation (FAST) Act Surface Transportation System Funding Alternatives (STSFA) program in 2016 (Round 1) and 2017 (Round 2). Within these two grant applications, Caltrans defined five projects to meet the objectives in the grant and to enhance California's Road Charge Pilot Program (RCPP). In 2018, Caltrans also applied for Round 3 of the STSFA Grant and was awarded funding in early 2019.

Below are the primary project objectives from the 2016 STSFA Grant (Round 1):

1. Expand Education and Outreach
 - a. Provide the public with information related to road usage charge.
 - b. Develop research initiatives aimed at informing the public on the current system of generating revenues for transportation infrastructure, how those funds are distributed and used.
 - c. Provide an open and transparent forum for the discussion of road charge as an alternative to the gas tax.

2. Develop Organizational Structure and Compliance Program
 - a. Define organizational structure for California’s road charge program
 - b. Examine and identify improvements to the current gas tax revenue model
 - c. Identify enforcement and compliance strategies
3. Test a Pay-at-the-Pump/Charge Point Model
 - a. Identify technology solutions for a Pay-at-the-Pump/Charging Station model
 - b. Select viable Pay-at-the-Pump/Charging Station software/applications
 - c. Demonstrate the effectiveness of the Pay-at-the-Pump/Charging Station software/applications through internal testing

Below are the primary project objectives from the 2017 STSFA Grant (Round 2):

4. Demonstrate a Pay-at-the-Pump/Charge Point Model
 - a. Test the viability of a Pay-at-the-Pump/Charge point system through a live demonstration and evaluation of new technologies
 - b. Evaluate feasibility, cost effectiveness, and public acceptance of a Pay-at-the-Pump/Charge Point model
 - c. Make recommendations regarding Pay-at-the-Pump/Charge Point implementation
5. Research on Public Attitudes
 - a. Examine public perception of transportation funding and transportation funding alternatives.
 - b. Execute a multi-channel, multi-lingual transportation funding communication and outreach program.
 - c. Evaluate and refine the most effective transportation funding messages and channels.

FAST Act STSFA Goals mapped to Caltrans Objectives

The table below summarizes the FAST Act STSFA Goals and maps Caltrans’ RCPP project objectives (listed above) to these goals.

FAST Act STSFA Goals	Caltrans RCPP Objectives				
	1	2	3	4	5
1. Test the design, acceptance, and implementation of 2 or more future user-based alternative revenue mechanisms.		✓	✓	✓	
2. Improve the functionality of such user-based alternative revenue mechanisms.	✓	✓	✓	✓	✓
3. Conduct outreach to increase public awareness regarding the need for alternative funding sources for surface transportation programs and to provide information on possible approaches.	✓		✓		✓

FAST Act STSFA Goals	Caltrans RCPP Objectives				
	1	2	3	4	5
4. Provide recommendations regarding adoption and implementation of user-based alternative revenue mechanisms.			✓	✓	
5. Minimize the administrative cost of any potential user-based alternative revenue mechanisms.		✓	✓	✓	
6. Minimize the administrative costs associated with the collection of fees.		✓	✓	✓	

Overall Project Health

The following table indicates the current overall health of each of the RCPP projects according to scope, schedule, and budget.

Task	Overall Health		Budget		Schedule	
	Prior	Current	Baseline*	% Variance	Planned End Date	% Variance
Education and Outreach			\$1,000,000	0%	January 2019	0%
Organizational Structure & Compliance Program			\$277,000	0%	September 2018	0%
Pay-at-the-Pump/Charge Point			\$250,000	0%	September 2018	0%
Demonstration and Research			\$3,500,000	0%	June 2020	0%

* Includes in-kind contributions

Project Health Key

	Good - On schedule, within budget, within scope.
	Potential Issues with scope, schedule, or budget – can be resolved with proactive and/or corrective action.
	Serious Issues with scope, schedule, or budget. Project will be delayed or have budget overrun. Corrective action required.

Budget Status

The following table indicates the total estimated cost for each RCPP project, as reflected in Caltrans' 2016 STSFA FAST Act Grant Proposal.

Round 1

Task	Estimated Cost	Federal Funds	State Funds	In-Kind Contribution
Education & Outreach	\$1,000,000	\$500,000	\$460,600	\$39,400
Organizational Structure and Compliance Program	\$277,000	\$125,000	-	\$152,000
Pay-at-the-Pump / Charge Point	\$250,000	\$125,000	\$73,500	\$51,500
Total Estimated Cost	\$1,527,000	\$750,000	\$534,100	\$242,900

The following table indicates the total amounts spent on each RCPP project as of December 2018:

Task	Federal & State Funds	Amount Spent	% Expended	In-Kind Contribution	In-Kind Services	% In-Kind
Education & Outreach	\$960,600	\$363,544	38%	\$39,400	\$239,696	608%
Organizational Structure & Compliance Program	\$125,000	\$179,559	144%	\$152,000	\$56,005	37%
Pay-at-the-Pump/Charge Point	\$125,000	\$179,599	144%	\$51,500	\$56,733	110%
TOTAL	\$1,284,100	\$722,662	56%	\$242,900	\$352,434	145%

The following table indicates the total estimated cost for each RCPP project, as reflected in Caltrans' 2017 STSFA FAST Act Grant Proposal.

Round 2

Task	Estimated Cost	Federal Funds	State Funds	In-Kind Contribution
Demonstration and Research	\$3,500,000	\$1,750,000	\$750,000	\$1,000,000
Total Estimated Cost	\$3,500,000	\$1,750,000	\$750,000	\$1,000,000

The following table indicates the total amounts spent on each RCPP project as of December 2018:

Task	Federal & State Funds	Amount Spent	% Expended	In-Kind Contribution	In-Kind Services	% In-Kind
Demonstration and Research	\$2,500,000	\$0	0%	\$1,000,000	\$177,428	18%
TOTAL	\$2,500,000	\$0	0%	\$1,000,000	\$177,428	18%

Project Status

Education and Outreach

Successfully completed work expanding upon ongoing efforts to engage the public in discussions on transportation funding and alternative methods of revenue generation.

- Developed core messages, creative strategy, and partnership strategy for education and outreach research.
- Conducted online survey in Spanish and English that was taken by 1,300 Californians.
- Held six focus groups throughout the state to test public perception of road conditions, transportation funding knowledge, perceptions of and reactions to potential road charge messages, and thoughts on a potential road charge system.
- Updated core messaging and creative direction based on focus group results.
- Overall research revealed need to educate and inform the public on road charge.
- Developed a new website landing page with campaign creative elements and messaging.
- Submitted Strategic Communications Plan to the California State Transportation Agency (CalSTA).
- Developed comprehensive creative package that was also included along with the Strategic Communications Plan.
- Submitted Strategic Communications Plan to FHWA.
- Began contract closeout process.

Organizational Structure & Compliance Program Development

Worked in partnership with the California Department of Motor Vehicles (DMV) to leverage and expand the data collected during the Road Charge Pilot Program (RCPP) to formulate a streamlined system of administration, oversight, and compliance.

- Conducted organizational visioning workshop with the DMV subject matter experts.
- Created and finalized a cash flow model and accompanying cash flow user guide.
- Presented findings to the Technical Advisory Committee (TAC).
- Finalized compliance memo.
- Developed a Final Report.
- Submitted all final deliverables on flash drive.
- Submitted final report to FHWA.
- Contract closed.

Pay-At-The-Pump/Charge Point

Explored an alternative method of collecting revenue for road use by assessing a mileage-based user fee that replicates the current gas tax collection mechanism; evaluating the feasibility of eventually replacing the current excise tax method.

- Released Request for Information (RFI) and conducted informational meetings with selected respondents.
- Developed final Demonstration Plan.
- Developed and finalized Concept of Operations (ConOps).
- Created a pay-at-the-pump summary to meet legislative reporting requirements.
- Submitted all final deliverables on flash drive.
- Submitted final report to FHWA.
- Contract closed.

Demonstration and Research

- Began developing Scope of Work (SOW) and Request for Proposals (RFP) package for Pay-At-The-Pump demonstration.
- Helped develop concepts for further demonstration of transportation funding alternatives.
- Continued to coordinate with IAWG participants, including the DMV.
- Conducted research and developed a research paper on autonomous vehicles and the potential nexus with road charge.
- Kicked off whitepaper on potential nexus between usage-based insurance and road charge.
- Submitted draft and final schedule for six focus groups throughout state.
- Drafted whitepaper concept memo that included review of public perception research completed from 2015 to present, potential road charge impacts to disadvantaged communities, and initial recommendations to ease impacts.
- Finalized whitepaper concept memo.
- Drafted whitepaper titled “The Importance of Assessing Potential Impacts of Road Charge on Disadvantaged and Low-Income Communities in California.”
- Completed web hosting and MailChimp hosting transition.

Conclusion and Next Steps

During 2018, the RCPP projects funded by the STSFA FAST Act 2016 grant concluded and their respective final reports were submitted to FHWA.

- **Education & Outreach**
 - Complete project closeout
- **Organizational Structure & Compliance Program Development**
 - None – project is complete
- **Pay-at-the-Pump/Charge Point**
 - None – project is complete

The outcomes of the activities performed from the 2016 STSFA grant award helped inform the work planned for the 2017 STSFA grant received and the 2018 STSFA grant. The funds from the 2017 STSFA grant and 2018 STSFA grant will be utilized in tandem to conduct a comprehensive road charge

demonstration that features emerging technologies in transportation. Caltrans will solicit proposals to implement a phased demonstration of pay-at-the-pump/charge point with the Usage-Based Insurance (UBI), Transportation Network Companies (TNCs), and Autonomous Vehicles (AVs) grant award.

In 2019, the following high-level tasks will be completed through utilization of the 2017 STSFA grant and 2018 STSFA grant awards:

- **Demonstration and Research**
 - Complete the respective briefing papers on the nexus between road charge with autonomous vehicles and usage-based insurance.
 - Conduct research on Blockchain.
 - Develop road charge cloud database concepts.
 - Begin website redesign and rebuild.
 - Finalize disadvantaged community research whitepaper and continue with website updates and hosting.
 - Develop additional public perception research whitepapers.
 - Conduct public perception focus groups with disadvantaged community participants.
 - Finalize SOW for pay-at-the-pump/charge point demonstration.
 - Release RFP for pay-at-the-pump/charge point demonstration.

- **Pay-at-the-Pump/Charge Point, UBI, TNC, and AV Demonstration**
 - Demonstrate the feasibility of and assess the cost-effectiveness of a road charge administered through a pay-at-the-pump/charge point funding system.
 - Demonstrate the feasibility of and assess the cost-effectiveness of auto insurance companies (those currently utilizing UBI) acting as CAMs in the collection of a road charge.
 - Demonstrate the feasibility of and assess the cost-effectiveness of collecting a road charge through transportation network companies.
 - Demonstrate the feasibility of and assess the cost-effectiveness of collecting a road charge through autonomous vehicles.
 - Report findings from the four (4) demonstrations to FHWA and provide guidance as to the suitability of the respective pay-at-the-pump/charge point, UBI, TNC, and AV road charge models.