

DEPARTMENT OF TRANSPORTATION

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*Making Conservation
a California Way of Life.*

April 22, 2019

Dear California Congressional Delegation Member:

The California Department of Transportation (Caltrans) recently submitted a Special Experimental Project No. 15 (SEP-15) Application to the Federal Highway Administration (FHWA) to seek their approval for modifications and waivers of existing requirements in Title 23, United States Code, and Title 23, Federal Code of Regulations, which preclude some types of fee collection within federally-assisted facilities in the highway right-of-way. I am now seeking your support for FHWA's approval of this application, which will provide Caltrans the authority to initiate the pilot use of fee-based Zero Emission Vehicle (ZEV) fuel vending at park-and-rides, maintenance stations, and Caltrans offices within specified federal rights-of-way (including contiguous to the operational interstate rights-of-way) and help California's communities realize a sustainable alternative fuels future. If approved, this SEP-15 will be a step in the right direction toward Caltrans' ultimate goal of statutorily amending Title 23 to allow states to permit private operators to install and operate alternative fueling stations in safety rest areas, and in fringe and corridor parking facilities, constructed or located on interstate rights-of-way.

This project is a key component of Caltrans' efforts to address the state's ZEV and long-term emission reduction goals. This SEP-15 application included the FHWA's input and advances a seven-year process that began in March 2012 when California Governor, Edmund G. Brown, Jr., issued *Executive Order B-16-12* directing the state government to help accelerate the market for ZEVs in California; and more recently, the 2018 *Executive Order B-48-18* calls for five million ZEVs on the road by 2030.

Developing an adequate network of vehicle charging equipment for ZEV drivers is among the most critical tasks for California communities to become ZEV ready; as network coverage is a primary factor that potential ZEV drivers consider when purchasing or leasing ZEVs. Upon the FHWA's approval of this project, Caltrans will assist in closing the gaps in the network by locating ZEV charging and refueling infrastructure at its park-and ride facilities, maintenance stations, and Caltrans offices. Additionally, Caltrans will enter into contractual public-private partnerships with vendors who will develop, operate and maintain the ZEV fuel distribution facilities.

Caltrans is committed to serving the people of California. In its traditional role, Caltrans ensures the safe and efficient travel of millions of Californians every day. And, the Caltrans of today strives to build communities and enhance the quality of life for California's residents, protect the environment, conserve natural and cultural resources, and strengthen the economy.

I greatly appreciate your support of Caltrans' SEP-15 application and look forward to working together to achieve our shared goal of spurring innovation in California, and the nation. If you

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have any questions or concerns, please contact me and (916) 654-6130 or Giles Giovinazzi,
Caltrans Chief of Staff & Federal Liaison at (916) 214-6144 or by e-mail sent to
giles.giovinazzi@dot.ca.gov.

Sincerely,



LAURIE BERMAN
Director

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April 12, 2019

Mr. Vincent Mammano
California Division Administrator
Federal Highway Administration
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814-4708

Dear Mr. Mammano:

Attached is the California Department of Transportation (Caltrans) SEP-15 application for "Zero Emission Vehicle Infrastructure." This application incorporates comments received from FHWA on the previous Concept Paper for this effort.

Caltrans fully and strongly supports the approach described in the application. Your prompt response will be greatly appreciated.

If you have any questions or concerns, please contact me at (916) 654-6130, or Elbert Cox, Principal Landscape Architect, Division of Design, at (916) 654-6200, or by e-mail sent to <elbert.cox@dot.ca.gov>.

Sincerely,

A handwritten signature in black ink, appearing to read "Laurie Berman".

LAURIE BERMAN
Director

Enclosure

California Department of Transportation

SEP-15 Application Zero Emission Vehicle Infrastructure

The California Department of Transportation (Caltrans) is actively engaged in efforts to minimize Green House Gas (GHG) emissions in business operations and within the transportation sector. Caltrans implements and supports effective GHG reduction performance measures and business practices such as: advocating for efficient land use planning; supporting Transportation Demand Management (TDM) strategies; increasing transportation system efficiency through operational improvements; deploying active transportation infrastructure; incorporating climate change considerations into the design and maintenance of facilities; identifying new opportunities to implement clean energy alternatives; and collaborating with public and private stakeholders and partners, whenever feasible, to support allied GHG reduction goals.

Carbon emissions from transportation accounts for 50 percent of California's GHG and 80 percent of smog-forming pollutants. Transportation GHG emissions account for 29 percent of total U.S. GHG emissions and almost 4 percent of global GHG emissions. These estimates account only for tailpipe emissions from burning fossil fuels to power vehicles and do not account for GHGs emitted through other transportation lifecycle processes, such as the manufacture of vehicles, the extraction and refinement of fuels, and the construction and maintenance of transportation infrastructure. Including these processes, U.S. transportation lifecycle GHGs are estimated to account for roughly an additional 5 percent of global GHG emissions. One effective strategy for reducing greenhouse gas emissions and decarbonizing the transportation sector is the replacement of combustion engine vehicles with zero emission vehicles (ZEVs). Promoting ZEVs and their associated technology helps protect the environment and stimulate economic growth and resiliency.

This application includes: the **Project** description, the proposed experimental feature, an explanation of the expected benefits and value to the State of California (State), and a discussion of how the area of experimentation varies from the requirements found in Title 23 U.S.C.

Introduction

This SEP-15 Application to the Federal Highway Administration (FHWA) represents a seven-year process that began in March 2012 when California Governor Brown issued *Executive Order B-16-12* directing State government to help accelerate the market for Zero Emission Vehicles (ZEVs) in California. The Administration's *2013 ZEV Action Plan* then identified specific actions that California State government entities would take to meet the milestones of the Executive Order.

Implementation of the *2013 ZEV Action Plan* has been effective: California's ZEV market has grown significantly, and California State agencies have completed several important actions. The California State Legislature continues to champion ZEV technologies, passing several important laws to facilitate market expansion. In addition, the California State Legislature has appropriated millions of dollars from the Greenhouse Gas Reduction Fund to advance ZEV technologies, including incentives for purchase of light-duty ZEVs, grants to implement zero-emission drayage truck demonstration projects and incentives for ZEV truck and bus purchases, among others. The updated *2016 ZEV Action Plan* outlines progress to date and identifies new actions California State agencies will take in continued pursuit of the milestones in the Governor's Executive Order. In January 2018 California Governor Brown issued *Executive Order*

B-48-18 directing the California State government to boost the supply of zero-emission vehicles, including charging and refueling stations in California.

The success of implementing the updated *2018 ZEV Action Plan* and *Executive Order B-48-18* depends upon the use of State-owned Federally-assisted facilities. Upon approval of this SEP-15 Application, the California Department of Transportation (Caltrans) will enter into partnerships with the private sector for development, operation, and maintenance of these ZEV charging and alternative fueling services. These public-private partnerships will only be feasible where revenue can be generated from fees charged for the alternative fuel being supplied.

This SEP-15 Application is being submitted to seek FHWA's approval for modifications and waivers of existing requirements of sections of Title 23, United States Code, and Title 23, Federal Code of Regulations, which preclude some types of fee collection within Federally-assisted facilities in the highway right-of-way. Approval of this application will provide authority to Caltrans to pilot, or allow for, fee-based alternative fuel vending within specified Federal aid rights of way. This will provide the opportunity for a public-private partnership undertaking in the implementation of the ZEV fueling infrastructure, where the partner is able to collect fees for alternative fuel charging on Caltrans properties. This promises to be an innovative and cost-effective method for Caltrans to help boost ZEV usage throughout California, which will result in associated public benefits, such as; improved air quality and reduced Greenhouse Gas (GHG) emissions from the transportation sector, as well as, reducing the State's ongoing fiscal investment in managing the ZEV Infrastructure.

A Concept Paper, 'Zero Emission Vehicle (ZEV) Infrastructure', in support of this application was submitted to FHWA on October 22, 2018. The comments received from FHWA have been incorporated into this application.

The overall intent of the SEP-15 program includes fostering innovation, promoting public-private partnerships and the greater use of private investment. The existing impediments identified in current laws, regulations and practices that inhibit this **Project** will need to be waived or modified to succeed.

Project Description

One of the greatest hindrances in realizing a sustainable alternative fuels future, is an incomplete ZEV charging and fueling infrastructure network. The main purpose of the **Project** is to encourage development of a statewide network by filling gaps along key routes of the State Highway System, and to support the network expansion into disadvantaged communities that might otherwise take years to develop.

Caltrans recognizes that the successful implementation of this **Project** requires close coordination with other efforts to develop a comprehensive ZEV fueling network. As such, Caltrans efforts are being accomplished in collaboration with the California Energy Commission and California Air Resources Board to strategically locate ZEV charging and refueling infrastructure where it is most needed.

Caltrans is proposing to address gaps in the ZEV charging and refueling infrastructure by utilizing State-owned Federally-assisted rights-of-way. The purpose of this proposed SEP-15 application is to assist in closing gaps at Park and Ride facilities, maintenance stations and Caltrans offices with no direct access to the interstate system. To facilitate implementation of this **Project**, Caltrans requests a SEP-15 waiver of the provisions of Title 23, United States Code, and Title 23, Code of Federal Regulations, that prevent the sale of fuel on state-owned Federally-assisted facilities in the rights-of-way and other provisions necessary to implement the **Project**.

The precise plans for implementation are as follows:

- Utilize State-owned Federally-assisted facilities in the highway right-of-way with no direct access to the interstate system.
- Support and facilitate public-private partnerships for development, operation, and maintenance of alternative ZEV electric charging and refueling infrastructure.
- Allow service fees to be charged to the customer for alternative fuel and electric charging.

This **Project** will test the effectiveness of providing convenient access to ZEV fueling stations to encourage the greater use of alternative fuel vehicles. Utilizing existing state-owned Federally-assisted facilities in the highway right-of-way will provide ready access for motorists to a comprehensive network of ZEV charging and alternative fuels distribution facilities. This **Project's** innovation may have application nationwide by promoting public-private partnerships in addressing the systemic problem of gaps in the alternative fuel services network.

Proposed Experimental Feature

Caltrans' focus is to encourage the use of alternative fuels to the maximum extent possible. Establishing the alternative fuel distribution facilities identified for this **Project** must include the ongoing investments in operations and maintenance over the **Project's** life, it is anticipated that this may be significant. Caltrans does not have the operating resources required to sustain a long-term statewide support of these ZEV charging and alternative fueling facilities.

The **proposed experimental feature** is to allow fee-based vending at State facilities, for the sale of alternative ZEV charging and refueling at Park and Ride facilities, maintenance stations, and Caltrans offices. Caltrans is seeking FHWA's approval for waivers of existing requirements to permit this proposal. Caltrans will enter into cooperative contractual public-private partnership with vendors who will develop, operate, and maintain the ZEV fuel distribution facilities located on state-owned Federally-assisted facilities in the highway rights-of-way, with no direct access to the Interstate system.

The market for alternative charging and fuels continues to increase. The public-private partnership agreements utilized for this **Project** will spur the development of a larger network of alternative fuel distribution facilities and encourage the adoption of alternative fuels by an ever-widening user base. Vendor obligations include ensuring that the charging hardware is in good repair and is keeping pace with the market and emerging technologies.

Caltrans is seeking authority to allow for the sale of electricity and alternative fuel to provide travelers with access to a comprehensive ZEV charging and fueling network. Caltrans is seeking this authority to support the **Project** and not to broadly commercialize State-owned Federally-assisted facilities in the highway rights-of-way.

Using Park and Ride facilities, maintenance stations, and Caltrans offices offer several advantages for the **Project**. These State-owned and Federally-assisted rights-of-way will offer public access to sustainable alternative fuels, and will raise awareness of ZEV charging availability in local communities and among the traveling public. These sites are critical to the implementation of the ZEV fueling network.

Benefits and Value to the State of California

Caltrans has dedicated significant resources to assure the success of the **Project**. Federal support in the form of a SEP-15 approval will help to justify continued state efforts to advance the ZEV program. While Caltrans is proceeding to install ZEV fueling stations, Caltrans believes it is prudent to seek FHWA's

approval for modifications and waivers of existing requirements which preclude some types of fee collection within state-owned Federally-assisted facilities in the highway rights-of-way. Stakeholders will be more likely to act if they know that the program already has the full support of FHWA. Most importantly, it will be more difficult to attract and assess partner interest in the **Project** without a statement by FHWA that it is prepared to provide the necessary waivers of the current Federal restrictions discussed in this SEP-15 Application.

Caltrans believes that the best method for implementing this **Project** will be partnering with private entities that would be responsible for development, operations, and maintenance of the ZEV charging and fueling infrastructure, in exchange for the revenue generated from fees charged for the alternative fuel supplied. Caltrans understands that private operation of commercial facilities on the right-of-way may be a controversial issue and wishes to emphasize that the purpose of any commercial activity within the right-of-way will be to ensure the successful construction and operation of the alternative fuel charging dispensers.

It is anticipated that the State will realize environmental benefits from the **Project** resulting from emission reductions achieved through greater use of alternative fuel vehicles

Variances from Title 23 U.S.C

The success of the **Project** depends upon the use of state-owned Federally-assisted facilities in the highway right-of-way as distribution points for electricity and alternative fuels. Current regulations restrict the commercial use of Interstate Highway rights-of-way. Caltrans proposes to allow private partners or vendors to develop, operate and maintain the ZEV charging and alternative fueling facilities via encroachment permit or through Request for Interest' (RFI) or 'Request for Proposal' (RFP) process. This will require waivers from FHWA to provide these services within the specified Interstate Highway and Federally-assisted facilities rights-of-way. Therefore, this SEP-15 Application seeks experimental approval to deviate from requirements in the following statutes and regulations:

- A. 23 U.S.C. § 111, which prohibits "automotive service stations or other commercial establishments" within Interstate Highway rights-of-way.
 - **Solution:** *Specify that self-service charging machines do not qualify as automotive stations or commercial establishments. The operation and footprint of self-service ZEV chargers is unlike an automotive station or commercial establishment, ZEV charging hardware does not require the presence of employed attendants on-site, nor the construction of commercial buildings.*
- B. 23 C.F.R. § 1.23(b), which requires all property within the Interstate Highway right-of-way to be devoted to public highway purposes.
 - **Solution:** *The establishment of the ZEV infrastructure on state-owned rights-of-way, particularly in rural and underserved areas of the State, is essential to the long-term sustainability and green infrastructure goals for the State Highway System.*

Moreover, allowing ZEV charging hardware at Park and Ride facilities supports the intended purpose of those public highway facilities, which are to provide a location to initiate and conclude non-single occupancy vehicle trips such as car-pooling or public transit travel. Making Park and Ride lots more attractive to ZEV drivers, increases the public utility of Park and Ride facilities, and supports efficiencies within the transportation system by attracting a wider pool of public transit riders and car-pool participants.

Caltrans will fully comply with requirements of the Civil Rights laws in the implementation of this **Project** and will require all contractors to do the same.

The goal of this **Project** is to test the effectiveness of providing convenient access to ZEV fueling stations to encourage the greater use of alternative fuel vehicles. Caltrans believes that developing an alternative fuels distribution network using state-owned Federally-assisted facilities in the highway rights-of-way, as described above, will offer significant benefits, including reduced pollution, reduced greenhouse gas emissions that contribute to global warming, increased demand for alternative fuels, an expanded market for the nation's developing alternative fuels industry, and reduced dependence on foreign oil. Additional benefits could include opportunities to showcase the States' commitment to principles of environmental stewardship.

Reporting and Evaluation of Outcome

Smart technology allows for data collection at the ZEV fueling infrastructure locations. The interface at the source of the distribution can be customized to collect travel-related data requested by the State and which can be used to report usage, purpose of trip, etc. These data can be coupled with industry and State source data that track the ZEV industry. The expected outcome of the Project is an increase in personally owned ZEVs, due to the elimination of the range anxiety, which is caused by gaps in the statewide network. The information listed below is a brief overview of what will be contained in the evaluation report. Additional specificity will be added once the SEP-15 application is approved.

Evaluation Measures

This experiment in alternative fuel distribution utilizing State owned Federally-assisted facilities in the highway right-of-way will be evaluated on a range of factors, including:

- (1) Distribution of alternative fuels: tracked by type and volume;
- (2) Cost savings to the State achieved by shifting responsibility for alternative fuel infrastructure development, operations, and maintenance to private operators;
- (3) Public response to private operation of alternative fuel stations at State facilities and
- (4) Environmental benefits from the use of alternative fuels

Reporting

Upon receiving approval of this Application, Caltrans will negotiate an Early Development Agreement (EDA) with FHWA to implement the Project.

Caltrans anticipates filing an initial report, interim report, subsequent report, and a final report, as described below.

Initial Report: Caltrans anticipates that an initial report will be provided after the signing of an EDA. This will provide information about the progress of the on-going development of the ZEV alternative fuel services distribution points, the development of a public-private partnerships model, public reaction to the Project, and outstanding issues. Caltrans will file an initial report within 120 days of award of a contract for development of the Project. The initial report will include a preliminary analysis of the procurement. The report will:

- Identify any reactions to commercialization of state-owned right-of-way (as described herein) by affected commercial entities and the public;
- Describe the development of the 'ZEV Infrastructure Partnership' Request for Proposal (RFP)
- Explain the process used to select the private partner;
- Document major innovations contained in the proposals received;
- Describe the contracts awarded (including the parties, the economic terms, the alternative fuel distribution expectations, and the sites to be developed); and
- Discuss any major problems or issues that have occurred and how they were resolved.

Interim Reports: Caltrans will file an interim report within **eighteen months** of commencement of development and operations by the private partner. This report will:

- Describe the results of operations (including alternative fuels distributed, financial results, and any impact to State facility operations);
- Provide an overall evaluation of impacts on demand for alternative fuels within the ZEV charging and fueling network;
- Assess impacts on stakeholders;
- Evaluate environmental benefits of the program, including potential emission reductions; and
- Estimate cost savings Caltrans has accrued by shifting responsibility for development, operations and maintenance of alternative fuel and electric charging infrastructure to the private partner.

Subsequent Reports: Caltrans will update FHWA on progress made, the status of ongoing operations, environmental benefits and fuel savings, etc. These reports will not be prepared on a regular schedule but will be prepared as significant developments occur, describing the progress of the development of the **Project** as of such date, problems encountered, and how they have been addressed. They would also be provided whenever requested by FHWA.

Final Report: Caltrans will prepare a final report at a reasonable time after the substantial elements of the network are operational. The timing of this report will depend on the progress of the **Project**, but, which is generally expected to be by the third year after the commencement of operations by the private partner. This report will detail impacts on alternative fuel sales within each ZEV fueling network, and associated emission reductions. Additionally, the Final Report will evaluate the overall impacts of the **Project** on several areas, including:

- Demand for Alternative Fuels: based on volume of fuel sold over the life of the **Project** to the date of the Final Report;
- Overall quality and performance of the **Project** fuel distribution facilities;
- Cost savings achieved by shifting development, operations, and maintenance responsibilities to the private sector;
- Impacts on use of State facilities, including public safety; and
- Public and stakeholder response to charging facilities located on the State-owned right-of-way.

As a first step in the SEP-15 process, Caltrans prepared a 'Zero Emission Vehicle (ZEV) Infrastructure' Concept Paper, setting forth an approach to obtain necessary modifications and waivers to Federal regulations necessary to fully implement the **Project**. It was submitted to FHWA on October 22, 2018. The comments received from FHWA have been incorporated into this application. As the **Project** progresses, supplemental requests may be necessary. Caltrans reserves the right to supplement this request to seek approval of other experimental features relating to the **Project**. However, there are no plans to seek waivers from engineering standards.