



Planning, Policy,  
and Programming

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**Project Title:**

Toolkit for the Deployment of Alternative  
Vehicle and Fuel Technologies

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## Toolkit for the Deployment of Alternative Vehicle and Fuel Technologies

To establish a community of practice that could share information as the states develop strategies and best practices to support commercialization of alternative fuel vehicles and infrastructure.

### WHAT IS THE NEED?

The nexus between the energy and transportation sectors is becoming more interlinked. Understanding this linkage is important for the FHWA and other USDOT modal administrations as it likely affects their mission and programs. Existing highway infrastructure and funding is designed around a gasoline- and diesel-powered vehicle fleet. The use of a substantially greater number of alternative vehicle and fuel technologies create a significant difference in fueling practices and infrastructure requirements. In addition, these new vehicle fuels and technologies may have other implications for highway finance, safety approaches, and operations.

### WHAT WAS OUR GOAL?

The goal of this project was to assist state and local transportation agencies interested in promoting the use of alternative vehicle and fuel technologies at a state, regional or corridor scale with the needed tools, information, and knowledge to do so.

### WHAT DID WE DO?

This Pooled Fund initiative program included a series of workshops around the country and developed a “toolkit” for state and local transportation agencies that will facilitate their deployment of alternative fuel vehicle and related technologies. The major tasks were:

1. Work Plan and kick-off meeting for state participants, FHWA and consultant facilitators.
2. Development of a strategy or framework outlining the



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- structure and content of each state workshop.
3. Organization and implementation of 5 regional/ topic-based workshops. This included a March 2017 workshop in Sacramento, CA titled, "Learning from the California Experience: Alternative Fuels, Vehicles and Infrastructure."
4. Development of a summary report and Toolkit for each workshop.
5. Technical assistance support for up to 6 months after delivery of Toolkit.
6. Training and Outreach.

## WHAT WAS THE OUTCOME?

The final product from this work was development of the Alternative Fuel Toolkit. This on-line resource can assist Caltrans and other state DOTs in learning about alternative fuels and vehicles; planning infrastructure and funding; and act using the AFV (Alternative Fuel Vehicle) Action Guide, facilitation materials, and other resources obtained through the workshops. Resources were developed in conjunction with a set of national workshops and reflect the latest stakeholder-input and research.

## WHAT IS THE BENEFIT?

Through this partnership effort with other states (that follows a previous multi-state effort which Caltrans participated in, regarding the development of strategies and best practices for State Departments of Transportation to support commercialization of electric vehicles (EVs) infrastructure), Caltrans' is able to continue the dialogue with other DOTs, which underscores the challenges that states face in planning and ultimately implementing alternative fuel infrastructure on state facilities. Through the interactions provided by this study, the Department will continue to gain insights into how to integrate alternative fuel infrastructure development into the

planning process: at the collaborative, technical and policy development levels. For California, the timing of this research effort worked in concert with Governor Jerry Brown's Executive Order B-16-2012, which directs California to "encourage the development and success of zero-emission vehicles to protect the environment, stimulate economic growth and improve the quality of life in the State." The Executive Order also sets a long-term target of reaching 1.5 million ZEVs (Zero Emission Vehicles) on California's roadways by 2025. Additionally, Caltrans' involvement with research projects such as this supports the Department's movement towards a more sustainable transportation future and will help the state reach its greenhouse gas (GHG) reduction goals found in California's landmark Climate Change mandate, Assembly Bill (AB) 32 and the associated regional implementation legislation, Senate Bill (SB) 375.

## LEARN MORE

<http://altfueltoolkit.org>

## IMAGES

