

## DOCKETED

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# Funding Electric Vehicle Infrastructure in 2016

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# Alternative and Renewable Fuel and Vehicle Technology Program

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\$17 million allocated by the Investment Plan for fiscal year 2016-17

- Need to conduct robust analysis of use of existing chargers
- Need to determine very focused areas for funding
  - Where are the tough nuts to crack?
  - Where will chargers move the needle for electric vehicle sales?
  - What will give the biggest bang for the \$17 million bucks?
- Need to get the money out to where it is needed as quickly and painlessly as possible for the recipients
- Need to continually increase investments outside of the program to get to a sustainable EV market



# A Brief History of Time: From the Big Bang to Black Holes



Awarded \$8 million in fall of 2009 for largest transportation electrification project to date to support Nissan Leaf and Chevy Volt rollouts in the San Diego and Los Angeles areas.



Awarded \$3.417 million in late spring 2010 to provide the chargers for the San Francisco (and surrounding counties) and Sacramento areas.

## “Up From the Ashes”

Awarded ClipperCreek (in partnership with EV Connect) \$2.3 million in 2011 to refit legacy chargers from 1990 to 2003.

These formed the foundation of almost 3,000 charger installations and upgrades in California.



# Driving range expanded as chargers were deployed.



First generation Nissan Leafs fitted with GPS trackers:  
As chargers were deployed and operational, the drivers expanded their range and use.

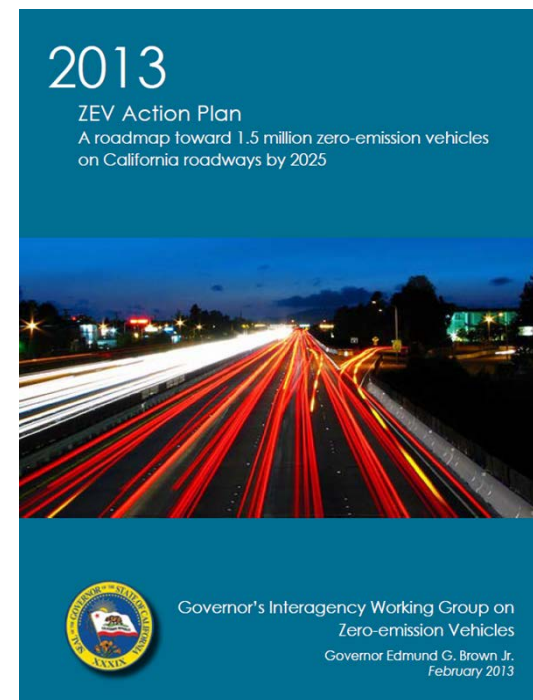


We didn't have . . .

- Direct Current Fast Charging (2011)
- Regional Readiness Plans (2011)

and . . .

## The 2013 ZEV Action Plan





# Electric Vehicle Infrastructure

## 2013 ZEV Action Plan EV Infrastructure Related Goals

**By 2020:** the State's ZEV infrastructure will be able to support up to 1 million vehicles

**By 2025:** Californians will have easy access to ZEV infrastructure.

### Related Action Items

- Develop Statewide PEV Infrastructure Plan
- Support completion of regional PEV plans which include PEV infrastructure plans
- Identify a path to complete the West Coast Green Highway (BC to Mexico)
- Encourage hosting of PEV chargers in multi-unit buildings
- Build awareness among state's major employers about workplace charging benefits
- Expand incentives to encourage California companies to install workplace charging infrastructure



## 2016 Update to ZEV Action Plan

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- Robust analysis to pinpoint areas for funding and the number of chargers needed to support the number of cars
- Data collection to evaluate usage of existing infrastructure
  - Number of charging events
  - Cars to charger ratios
- Getting funds to the intended recipients quickly and simply
  - Vouchers/Rebates
  - Small, very focused solicitations
  - Simple application forms (checklist)
- Capitalizing on projects that have completed preliminary work and have charging sites selected and ready to go
- Leveraging public and private partnerships to get to market sustainability





# Commitment to Diversity

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The Energy Commission adopted a resolution on April 8, 2015, to firmly commit to:

- Increase participation of women, minority, disabled veteran and LGBT business enterprises in program funding opportunities
- Increase outreach and participation by disadvantaged communities
- Increase diversity in participation at Energy Commission proceedings
- Increase diversity in employment and promotional opportunities

## Survey



# Electric Vehicle Infrastructure – June 6, 2016 Workshop

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Items for discussion include:

- Strategic Planning – Getting sufficient infrastructure by 2020.
  - Energy Commission and partners working together.
  - Getting funding out faster and simpler while supporting the goals.
- Obtaining the data to inform deployment and provide the foundation to perform robust analysis.
- Numbers and locations for chargers at the local level (combining use data with analytical models and travel patterns). Developing validation and ongoing checks and balances.
- Leveraging work by the regional plans.
  - Existing PEV readiness plans
  - Upcoming solicitation
- Addressing the difficult deployments that have great potential to move the market.
  - E-mobility
  - The Fresno case study
  - CalGreen
  - South Bay Cities Council of Governments
- Moving to a sustainable market case. Knowing where everyone fits into the 2020 and 2025 timeline.
  - CalCAP Loan Loss Reserve



# Electric Vehicle Infrastructure





# Thank you

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