Advancing Public Fleet EV Adoption

Government Agencies in California

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Center for Sustainable Energy™

Our Mission:

Accelerate the transition to a sustainable world powered by clean energy

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California Clean Vehicle Rebate Project (CVRP)

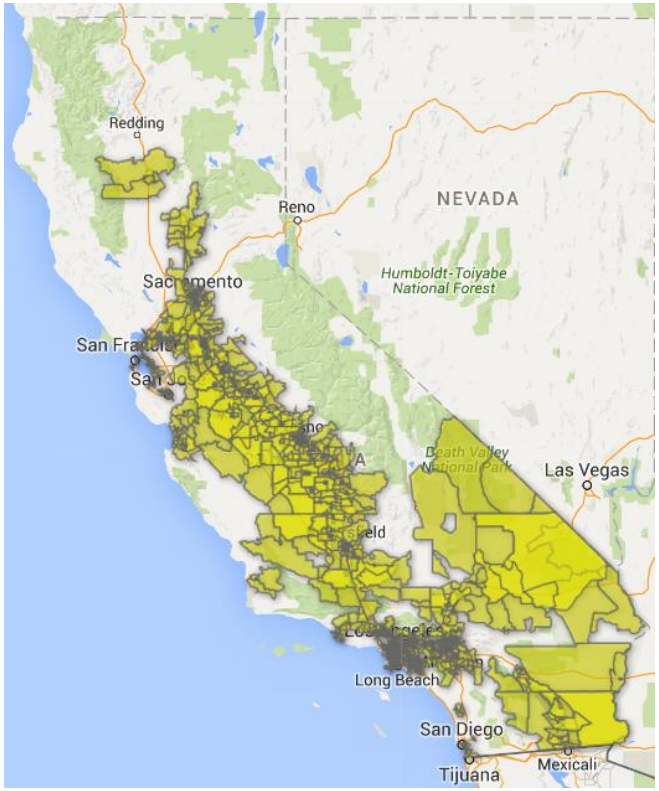
California Environmental Protection Agency
Air Resources Board

Post-delivery rebates for eligible light-duty vehicles

Vehicle Type	Rebate Amount
Fuel-Cell Electric Vehicle (FCEV)	$5,000
Battery-Electric Vehicle (BEV)	$2,500
Plug-in Hybrid Electric Vehicle (PHEV)	$1,500
Zero-Emission Motorcycle (ZEM)	$900

Public Fleet Pilot Project

Increased Incentives for Public Fleets in Disadvantaged Communities



Vehicle Type	Rebate Amount
Fuel-Cell Electric Vehicle (FCEV)	$15,000
Battery-Electric Vehicle (BEV)	$10,000
Plug-in Hybrid Electric Vehicle (PHEV)	$5,250

ZIP codes containing Disadvantaged Communities as defined by CalEnviroscreen:
http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535zipmap.htm

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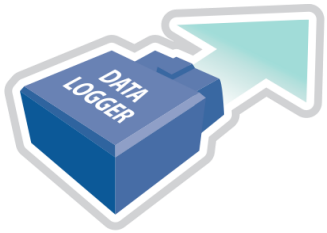
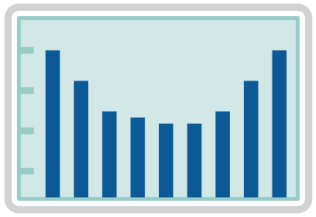
EV Suitability Assessments

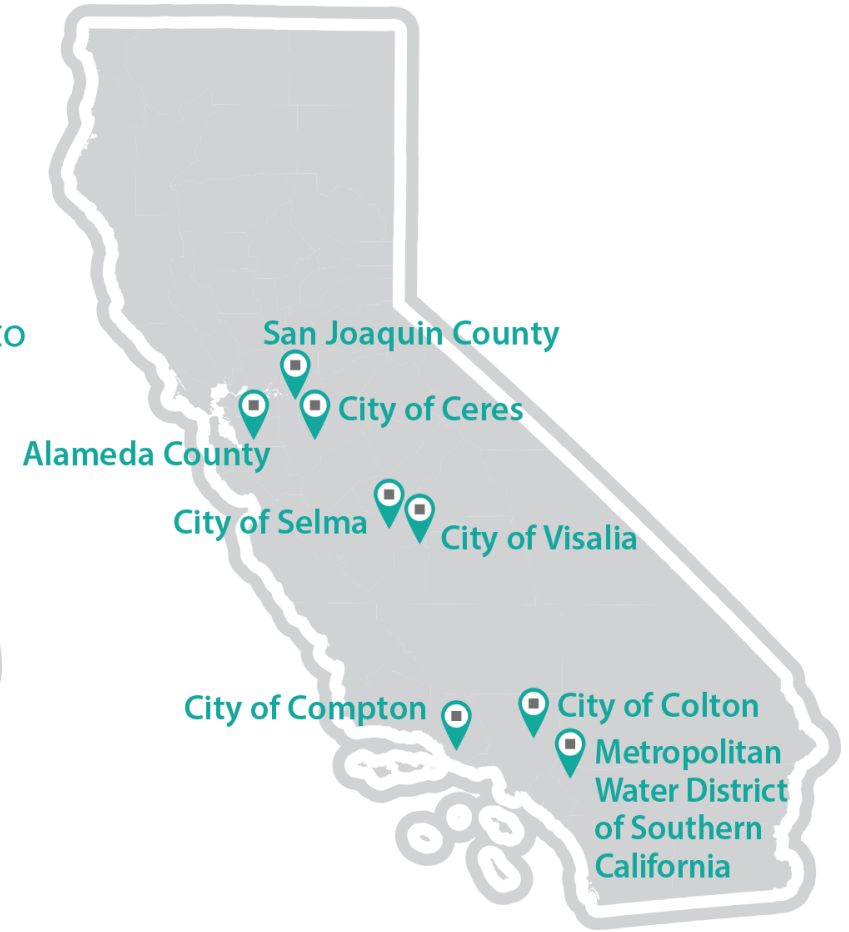


Log baseline vehicle operation to determine how vehicles are currently used.



Input duty cycle data into FleetCarma EV models to evaluate EV suitability and operational costs.

Discover which EV technologies best match fleet vehicle duty cycles and optimize total cost of ownership.



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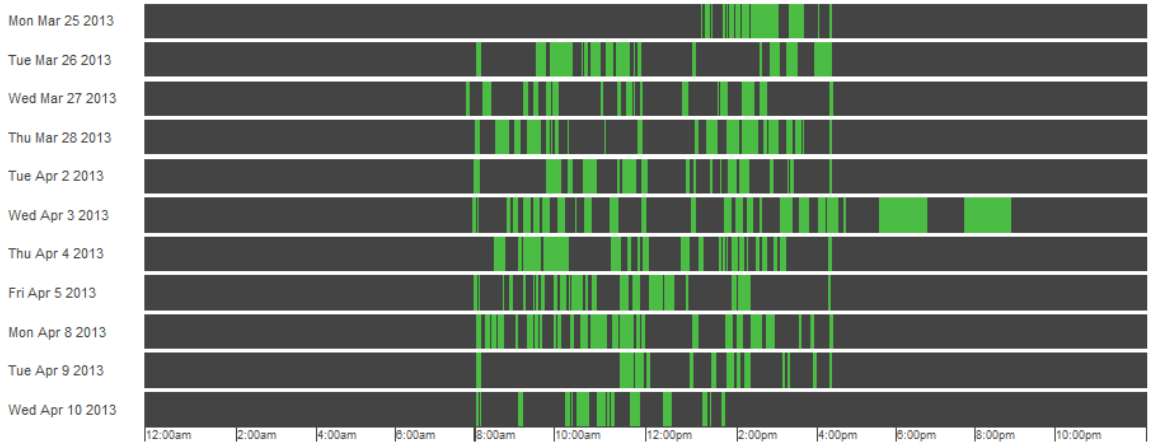
Baseline Vehicle Logging

Fleet:	
Depot:	
Vehicle:	2010 Ford Fusion
Unit Id:	1442
Description:	
Log Dates:	March 25 - April 10 2013
Logtime:	16 Days, 0 Hours
Operation Hours:	27.5 (1.7 h/operating days)
Time Idling:	318.8 min (19.3%)
Total Distance Travelled:	632 mi
Longest Single Day:	194 mi

Consumption:	21 MPG
	1,572 Wh/mi
Carbon Emissions:	1.20 lb/mi



Project Averages

Daily driving distance:
23 miles

Fuel economy:
23 mpg

Engine-on time spent idling:
27%

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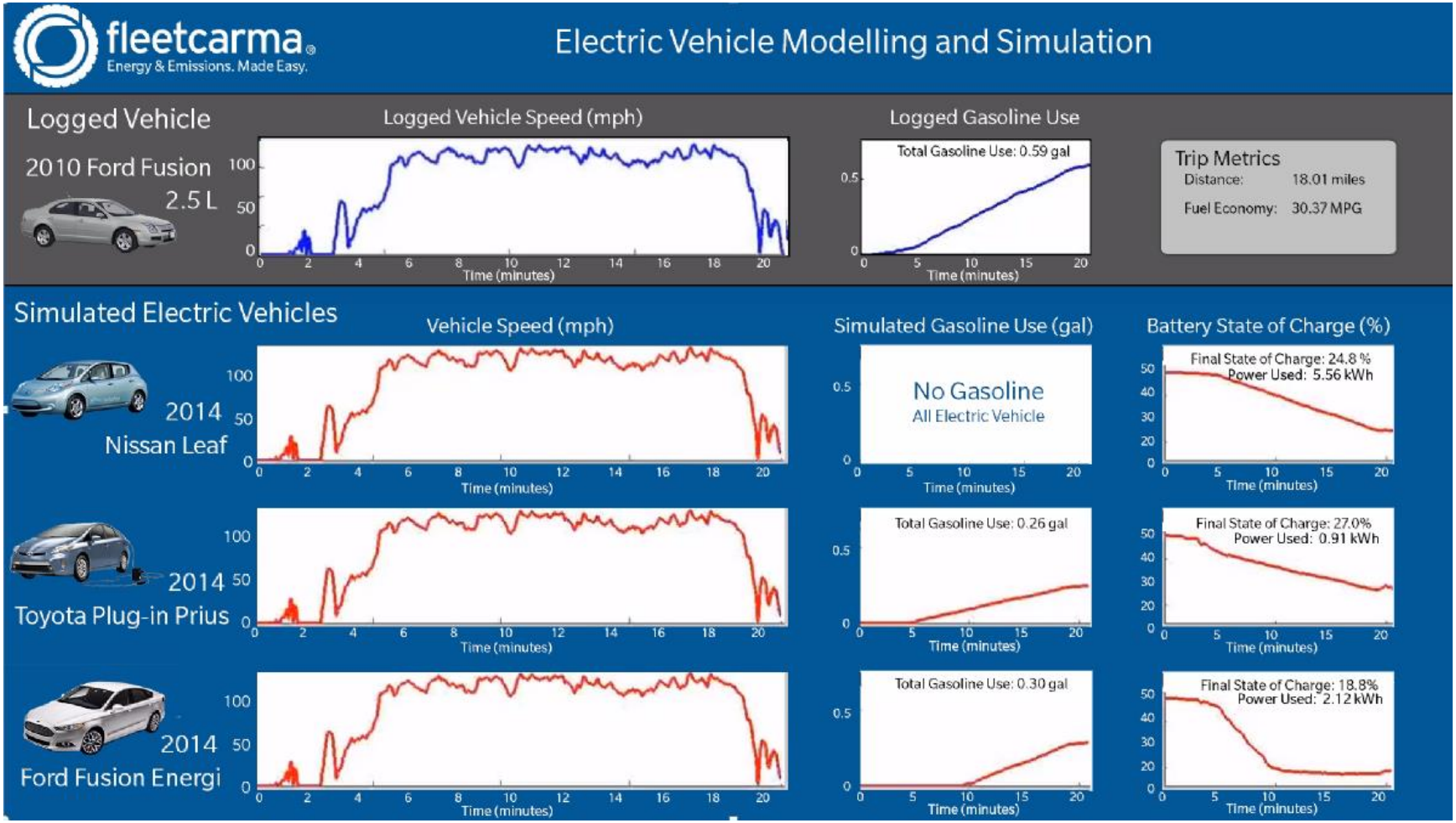
EV Duty Cycle Modeling



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Modeling Results

27 PHEVs
Recommended

41 BEVs
Recommended

17 vehicles
Not recommended for replacement

Lessons Learned - Challenges

- EV charging infrastructure
- Need for larger vehicles
- From motor pool to vocational
- Institutional support

Lessons Learned - Opportunities

- Suitability assessments made fleets more likely to acquire EVs – 50 purchases in process

> ***"This assessment was a great opportunity to evaluate our future needs for electric vehicles and related equipment to change our carbon footprint."***
>
> *— Roseann Galvan, City of Selma*

- Financial incentives remain important part of the business case for EVs in public fleets
- Technical assistance, best practices, and peer-to-peer information still in demand

Contact Us

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