

Advice and Insights on Switching to Zero-Emissions Vehicles



# Cal Fleet Advisor Mission

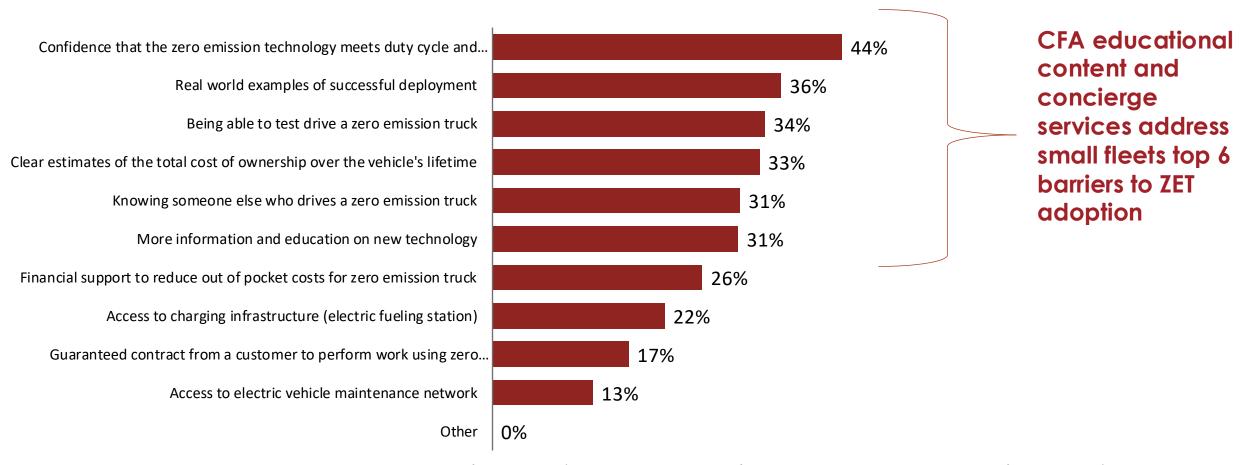


Cal Fleet Advisor's mission is to provide no-cost education, technical assistance, and referrals to enable California's medium- and heavy-duty fleets of any size to switch to zero-emissions vehicles.

### What Assistance is Needed?



Over 400 small fleets were asked "which of the following would help you feel more comfortable adopting a zero-emission truck? The results:



Source: March 2022 the NGO <u>Dream Corps Green for All</u> published a report that focuses on the role that small fleets play in the Zero-Emission Trucks (ZETs) transition. Green for All evaluates 446 digital survey responses from small fleets

## Cal Fleet Advisor



- Administered by CALSTART on behalf of CARB
- Funded by HVIP
- Provide Technical Assistance to all California MHD fleets
- Prioritize small fleets, drayage, and disadvantaged communities
- Collaborative approach to fleet assistance – learn about fleet needs and provide fleet-specific advice









# How We Help



- Provide concierge-style assistance to help fleets overcome electrification challenges
- Address fleet's specific needs not a one-size-fits-all approach
- Focus on straightforward solutions to stated issues
- Apply lessons to future fleet assistance
- "Everything they need, and nothing they don't."



## Who We Serve



- Any on-road medium- or heavy-duty commercial fleet in California
  - 8,500lbs-82,000lbs
- Currently working with fleets from 0 trucks to 52,000
- Includes trucks, vans, and buses
  - Now with 100% more school bus!
- Emphasis on small fleets <20 and Disadvantaged Communities (DAC)</li>

## **Benefits to Fleets**



- Gain an understanding of how they can benefit from switching to ZEVs
- Access to financial, infrastructure, and logistical tools that can help the fleet make informed ZEV purchases
- Learn from experts in ZEV transition on incentives, technology, and regulations
- Get quick answers and referrals to:
  - Dealers
  - Utilites
  - Regulation resources
- Access to incentive funding & HVIP guidance

## What Cal Fleet Advisor Does Not Do:



- Electrical Engineering/Planning/Permitting
  - We can help with total power needs and level 2 vs level 3 chargers
- Grant Writing
- Regulatory Compliance Determinations
  - Refer to CARB or appropriate agency
- Play favorites
  - Referrals are at fleet request
- Enforce Regulations

## How to Use CFA



- 1. Fill out the simple form at calfleetadvisor.org
- 2. Talk about your fleet's needs with your advisor
- **3. Get recommendations** for vehicles, charging, and incentives
- **4. Ask** for referrals to utilities, dealers, and project partners
- 5. Get incentives tailored to your fleet
- 6. Start using your ZEVs and save on fuel, maintenance, and more!





# All Fleets: Best Practices



- Contact utility early
- Use incentive programs before regulatory requirement
  - CARB generally incentivizes proactive steps, not compliance
- Select most cost-effective charging option that still gets the job done
- Review duty cycle can changes be made to reduce charging/payload/range needs and still meet requirements?
- Check public charging/fueling options
  - Opportunity Charging during driver breaks, loading stops



# ZEV Fuels Battery-Electric vs. Hydrogen Fuel Cell



#### Battery Electric MHD Vehicles

- Typically weigh more
- Lower payload capability
- From 1-10 hrs to charge
- Typical Range 100-250 miles
- Less expensive to purchase and fuel than Hydrogen

#### Hydrogen Fuel Cell MHD Vehicles

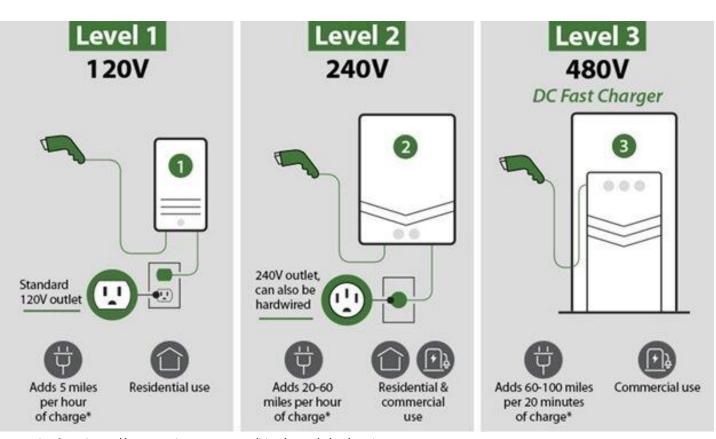
- Weigh more than diesel, but less than BEV
- Standard payload capability
- ~20min fueling time
- Range up to 400 miles
- More expensive to purchase and fuel
- Hydrogen sourcing concerns



# ZEV Charging Considerations



- Cost
- Power supply (240v/480V)
- Electric rate structure
- Quantity of vehicles
- Time of use
- Sequential vs simultaneous
- Duty Cycle

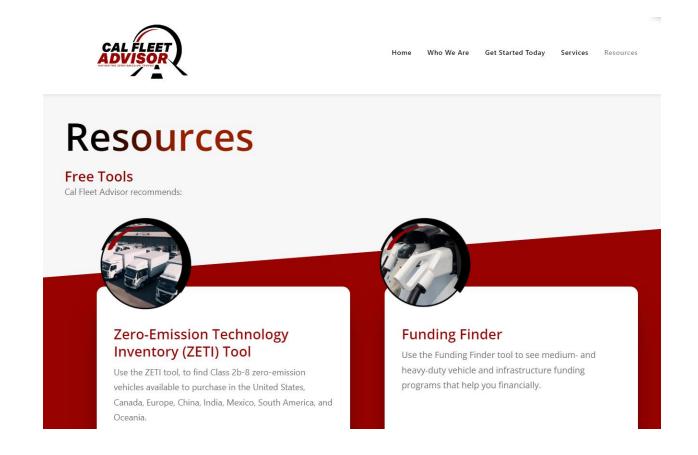


Graphic from https://www.aedesign-inc.com/blog/2021/9/23/ev-charging-101

## Resources



- HVIP Vehicle Catalog
- ZETI Tool
- PG&E MSRP List
- SCE DRPEP Tool
- Funding Finder
- CARB Regulatory Resources
- MHD Infrastructure Map



Access a suite of resources at: <a href="https://calfleetadvisor.org/resources/">https://calfleetadvisor.org/resources/</a>

## **Popular Incentives**



#### HVIP/ISEF

- "Cash on the hood"
- Increased amounts for small fleets, DAC, drayage, and more

#### Carl Moyer

- Requires scrapping older diesel vehicle
- Administered by AQMD

#### VW Diesel Fund

- Requires scrapping older diesel vehicle
- Stackable with HVIP

#### Tax Credits (2025 tax year)

- Commercial clean vehicle credit up to \$40k
- Up to 30% for infrastructure
- Direct pay for municipalities

#### Funding Finder





