

# ADVANCED CLEAN FLEETS REGULATION

## Impacts on the California Trucking Industry and Economy

The Advanced Clean Fleets (ACF) Regulation requires trucking fleet owners to phase out their gasoline- and diesel-powered vehicles and replace them with zero emission vehicles within the next two decades. Capitol Matrix Consulting (CMC) was commissioned by the California Fuels and Convenience Alliance to analyze the impacts of the ACF regulation on the trucking industry as well as California consumers and businesses. CMCs main findings are summarized below.


### THE TRUCKING INDUSTRY IS CRUCIAL TO CALIFORNIA'S ECONOMY



Directly supports:

  
**\$29 billion**  
in gross  
domestic  
product

**265,000**  
jobs  


  
**\$25 billion**  
in earnings

- **Indirectly supports tens of thousands of additional jobs** in maintenance, fueling, and logistics industries.
- **Moves 75 percent of all cargo in California**, connecting farms, manufacturers, small businesses, retailers, and households.

**All these contributions are put at risk by the ACF regulation.**






### THE ACF REGULATION WILL SHARPLY RAISE TRUCKING COSTS AND RISKS

**CARB severely underestimates the cost imposed by the ACF regulation.** For example, its economic impact analysis of the regulation:

- Seriously understates the costs of electricity and purchase prices for electric-powered trucks.
- Assumes no replacement of the \$1.35 per gallon in sales and excise taxes on diesel that support roads, highways, and bridges.
- Fails to account for efficiency losses related to shorter range, longer fueling times, and reduced cargo capacity of battery-powered big-rigs.

Adjusting for these real-world factors, fleet ownership costs for electric-powered trucks will exceed their diesel-powered counterparts by 22 percent for small cargo vans, and up to 136 percent for "Class-8" big rigs using on-highway charging. **The weighted average cost increase is about 80 percent.**

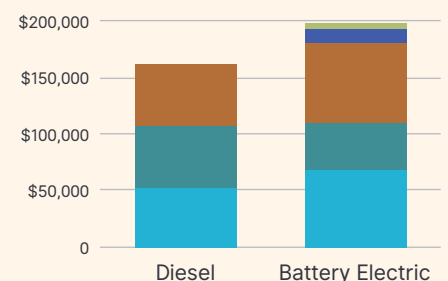
#### Total Cost of Ownership Comparisons

-  Purchase price
-  Fueling costs
-  Charger, maintenance, and other
-  Replacement of excise/sales taxes
-  Efficiency losses



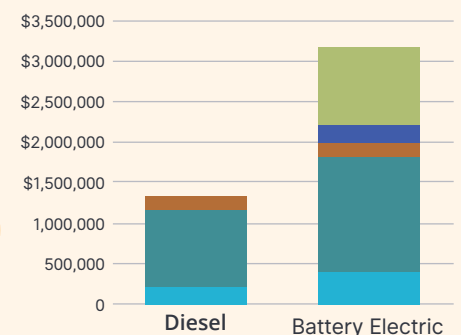
UP TO  
**136%**  
HIGHER

#### CLASS-2 CARGO VAN



**22%**  
HIGHER

#### CLASS-8 SLEEPER CAB

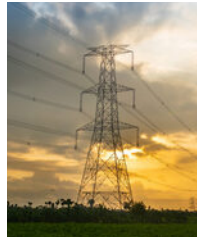


## OTHER RISKS POSED BY THE ACF REGULATION



### ELECTRICAL POWER SHORTAGES

- The ACF mandate will require massive increases in electricity supplies.



#### Charging Needs for Trucking Fleets

Size of depot:	Electricity Required	Equivalent to:
Roadside rest stop 16 chargers	5.2 megawatts	Football stadium
Large overnight depot 60 Chargers	21 megawatts	Small City

- Similarly large increases will be resulting from electrification of other major sectors of the state's economy.
- Combined these changes will require massive and costly investments in California's electrical grid. California is not on track.
- If the grid expansion fails to keep pace with growing demand, California will face electricity rationing, supply disruptions, and blackouts.

#### CONSEQUENCES:



Supply chain  
disruptions



Spoiled produce  
and medicines



Product  
shortages



Price spikes



### FIRE RISKS

- Lithium fires burn hot, emit toxic fumes, are hard to extinguish, and have a tendency to reignite.
- Recent fires involving lithium batteries have resulted in extensive damage and lengthy road closures across California.
- This leads to major safety concerns, especially for trucks hauling flammable liquids. Lithium battery fires at a petroleum fuel terminal, a gas station, a charging depot, in a tunnel, or on a bridge would have catastrophic consequences.
- The enhanced fire risk also raises questions about insurance rates, further raising costs to trucking industry and consumers.

## Higher Trucking Costs Will Hurt Businesses and Consumers

**\$2,500** per year

Amount the increase in trucking costs resulting from the ACF will raise prices of goods and services purchased by the typical California household

- The impact will be regressive, **hitting low-income households the hardest.**



## A BETTER APPROACH



**Reliance on incentives and flexible policies that enable fleet owners to choose cost-effective options for cutting emissions until full electrification becomes economically and technologically viable.**



One such option is **renewable diesel**, which has carbon intensity that is **71%** less than petroleum diesel and **53%** less than current electricity generation.