

DOCKETED

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California Energy Commission

Public Meeting of the Advisory Committee for the Clean Transportation Program Investment Plan

June 7, 2024



Housekeeping

- Meeting is being recorded
- Virtual participation possible through Zoom or telephone
- Meeting event webpage: <https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/clean-transportation-program-investment-9>
- Docket location: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=24-ALT-01>
- Submit written comments to Docket 24-ALT-01.

Deadline for comments: Friday, June 21, 2024, 5:00 P.M.



Housekeeping, cont'd.

- Bagley-Keene Act (amended by SB 544)
- Remote Advisory Committee attendees:
 - Any other adults with you?
 - Keep cameras on except in specific cases



Meeting Agenda

- Welcome and housekeeping
- Opening remarks by Commissioner Monahan
- Advisory Committee introductions and roll call
- Overview of CEC's Clean Transportation Program, zero-emission vehicle (ZEV) infrastructure planning and analysis, regulations, and funding activities
- Overview of the draft staff version of the *2024–2025 Investment Plan Update*
- Advisory Committee discussion on the *2024–2025 Investment Plan Update*
- Public comment
- Closing remarks



**Welcome to the June 7, 2024 Public
Meeting of the Advisory Committee for
the Clean Transportation Program
Investment Plan**



Refreshed Clean Transportation Program Advisory Committee

Representative Name	Organization
Commissioner Patty Monahan (Presiding Member)	California Energy Commission (Natural Resources Agency)
Andrew Martinez	CARB (California Environmental Protection Agency)
Beverly Greene	Alameda-Contra Costa Transit District
Bill Magavern	Coalition for Clean Air
Brittany Carpenter	Fresno Metro Black Chamber of Commerce
Elise Candelaria	Employment Training Panel (Labor and Workforce Development Agency)
Gia Vacin	Governor's Office of Business and Economic Development (GO-Biz)
Gillian Gillett	Caltrans (State Transportation Agency)
Gregory Cane	California Hydrogen Car Owners Association
Joel Levin	Plug In America
Jon Hart	PowerFlex
Katrina Fritz	California Hydrogen Business Council



Refreshed Clean Transportation Program Advisory Committee, cont'd.

Representative Name	Organization
Kevin Hamilton	Central California Asthma Collaborative
Larry Engelbrecht	Engelbrecht Consulting
Laura Renger	California Electric Transportation Coalition
Luis Olmedo	Comite Civico Del Valle
Mariela Ruacho	American Lung Association
Marissa Wu	The Greenlining Institute
Micah Mitrosky	IBEW Ninth District
Michael Pimentel	California Transit Association
Morgan Caswell	Port of Long Beach
Morris Lum	Recreational Boaters of CA
Nicholas Blair	Association of California Water Agencies
Rev. Charles Dorsey	The Dorsey Group
Rev. Harvey Vaughn III	Bethel AME Church
Sam Wilson	Union of Concerned Scientists
Suzanne Caflisch	Better World Group
Ted Lamm	UC Berkeley School of Law
Teresa Bui	Pacific Environment
Vanessa Warheit	Electric Vehicle Charging for All Coalition



Break

Meeting will resume at 10:30am

Background for the Clean Transportation Program and Investment Plan



Charles Smith, Branch Manager
Fuels and Transportation Division



California's Electric Vehicle Goals

2025



1.5 MILLION
EV'S SOLD



INCLUDING
10,000 FAST
CHARGERS



250,000
CHARGERS INSTALLED



200 OPEN
HYDROGEN STATIONS

2030



5 MILLION
EV'S SOLD

2035



100%
ELECTRIC SALES FOR
NEW PASSENGER VEHICLES



100%
ELECTRIC OPERATIONS
FOR DRAYAGE TRUCKS
AND OFF-ROAD VEHICLES
& EQUIPMENT

2045

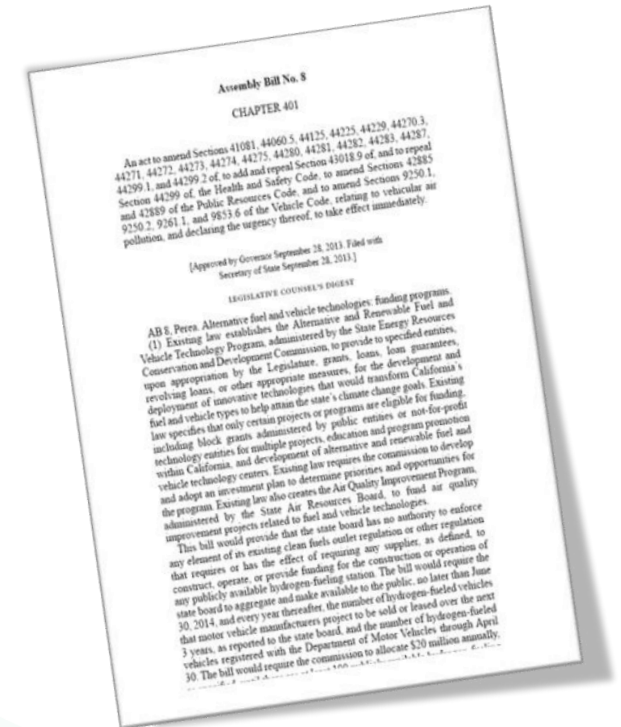


100%
ELECTRIC OPERATIONS
FOR MEDIUM- AND
HEAVY-DUTY VEHICLES



Origins of the Clean Transportation Program

- Transportation pollution burdens vulnerable and disadvantaged communities most
- AB 118 (2007) created Clean Transportation Program
- Up to \$100 million per year
- AB 126 (2023) reauthorized through July 1, 2035



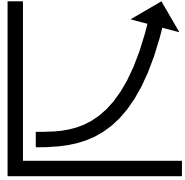


The CEC is Committed to Inclusion, Diversity, Equity and Access

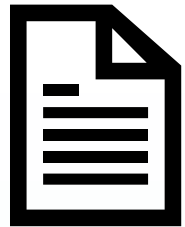
- More than 50% of Clean Transportation Program funds to projects benefiting low-income and disadvantaged communities
- Engaging DACAG, Clean Transportation Program Advisory Committee, coalitions, and community groups
- Nonprofits eligible, often incentivized, to participate in grants
- Working to better measure and target program community benefits



Three Ways CEC is Advancing the ZEV Transition



ZEV infrastructure planning and analysis



Regulations and charging standards



Funding programs for ZEV charging and refueling infrastructure, manufacturing, and workforce development

Photo credit: CEC



ZEV Infrastructure Planning and Analysis

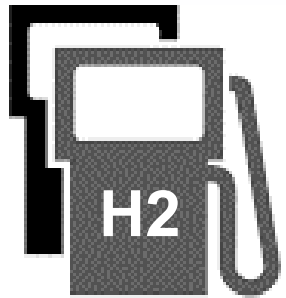




Zero-Emission Vehicle Infrastructure Deployment Today



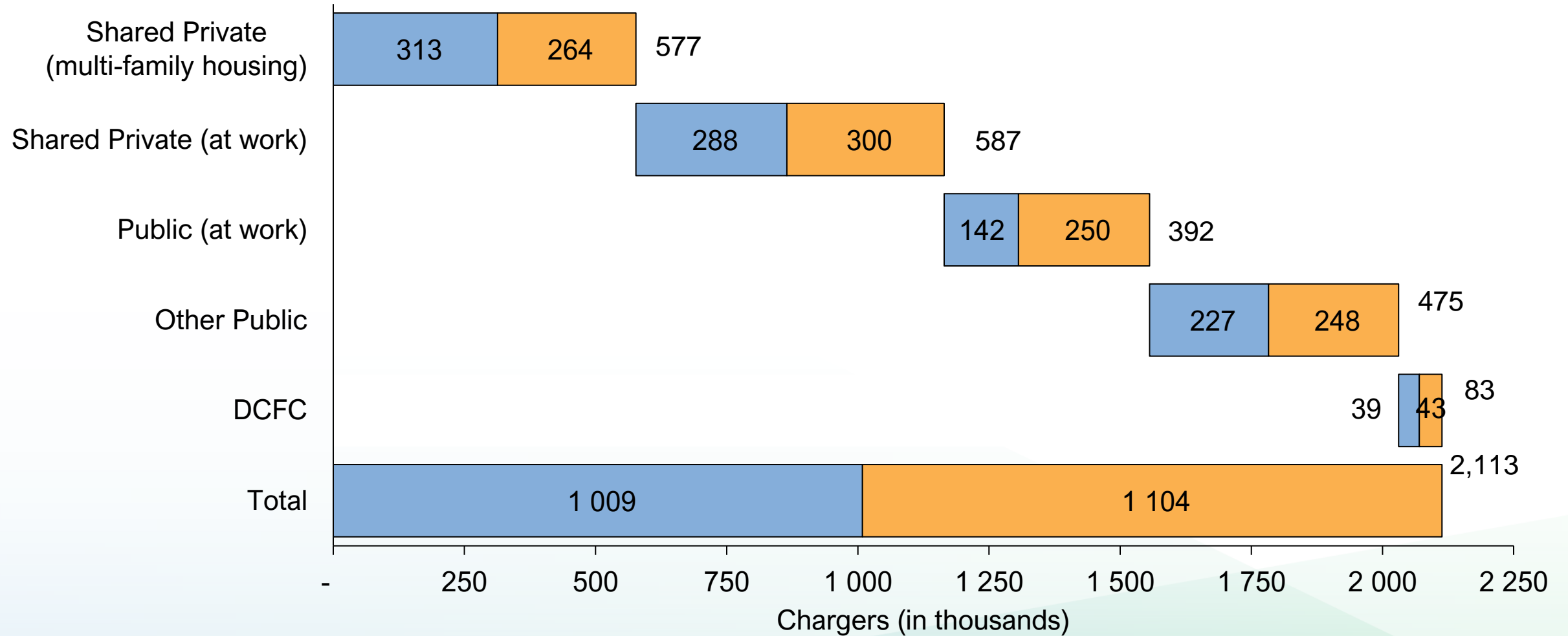
~105,000 chargers (excluding private residences)
93,600 Level 2
11,300 DC fast chargers



54 operating light-duty refueling stations
7 not operating (not included)
3 transit bus stations operating
4 public medium- and heavy-duty (MDHD) stations open



AB 2127: Charging Infrastructure Assessment



■ Chargers needed for 7.1 million PEVs in 2030 ■ Additional chargers needed for 15.2 million PEVs in 2035



AB 8 and SB 643: Projections for Hydrogen Refueling Infrastructure

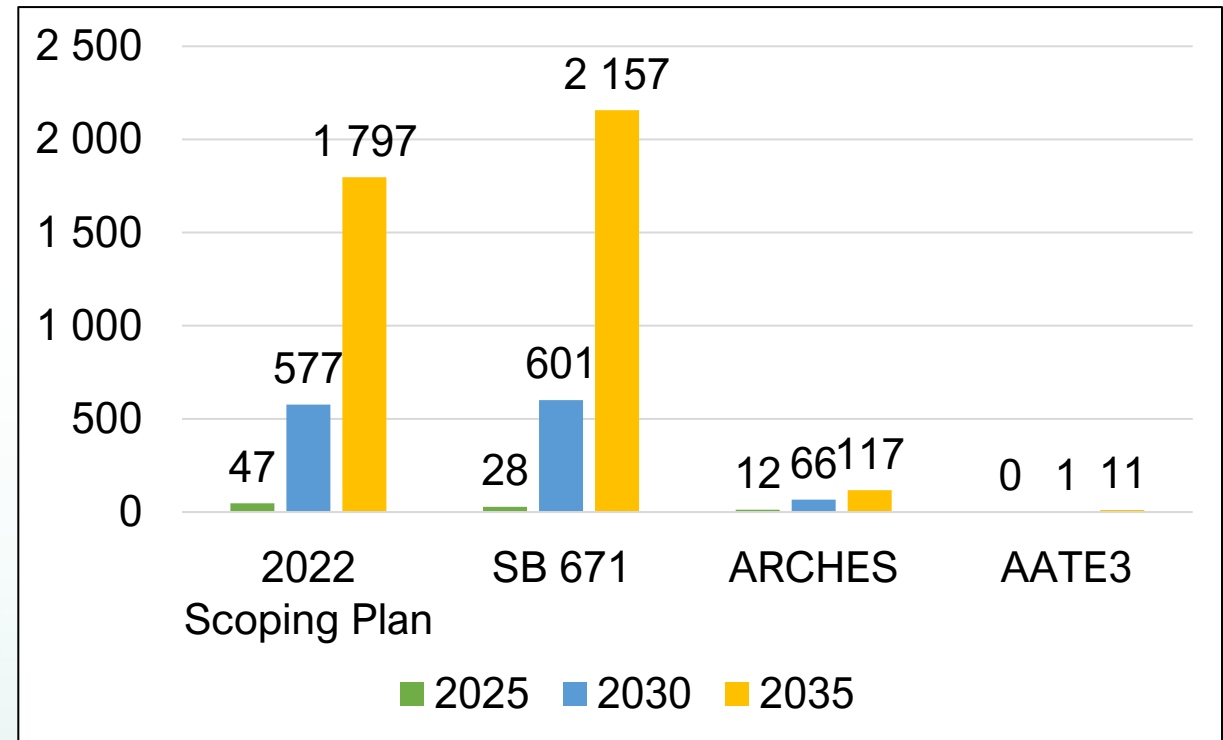
Passenger Vehicles

- Cumulative sales: 17,769 FCEVs
- Estimated on-road: 14,185 FCEVs
- Projected by 2029: 62,600 FCEVs

- Today's 54 operating stations can support about 32,000 FCEVs

- Funding for 119 total stations

Medium- and Heavy-Duty and Other Commercial Vehicle: Station Requirements by Scenario and Year





Regulations to Improve the ZEV Driver Experience



Proposed Regulations on Charger Reliability

Quarterly reporting

Reliability performance standards
(publicly funded chargers)

Reliability recordkeeping
(publicly funded chargers)

Customer service requirements

Third-party data sharing

Requirements for funding entities



EV Charger Payment and Interoperability Standards



Photo credit: CEC

New payment method requirements, under CEC's authority

- Applies to fee-for-use chargers made public or newly installed on or after July 10, 2023
- Network roaming capability
- Labeling, signage, and reporting

Status:

- May 22, 2024: Pre-rulemaking public workshop
- Late 2024: Draft staff report



Questions so far?

- Background for the Clean Transportation Program
- ZEV Infrastructure Planning and Analysis
- Regulations to Improve the ZEV Driver Experience

Next:

- Funding Program Overview
- 2024–2025 Investment Plan Update and Allocations

Funding Program Overview



Marissa Williams, Supervisor, Program Integration Unit
Fuels and Transportation Division



Targeted Solicitations and Block Grant Incentives

- Block grant incentives
 - Funding distributed through third-party implementers
 - Projects follow strict guidelines
 - Often more efficient when there are many smaller, similar projects
- Competitive solicitations (Grant Funding Opportunities)
 - More flexible
 - Increased scrutiny over projects
 - More time and resources to score and implement



Light-Duty Charging Infrastructure Block Grants

CALeVIP 1.0

- DC fast and/or Level 2 chargers
- Closed to new applications
- \$226 million

CALeVIP 2.0

- 150 kW or greater DC fast chargers
- Two funding windows
- \$68 million

Communities in Charge

- Level 2
- Two funding windows
- \$68 million



Photo credit: CEC



Photo credit: PlugShare



Photo credit: IKON



Medium- and Heavy-Duty Block Grant Incentive Programs

energIZE
COMMERCIAL VEHICLES





Examples of Targeted Solicitations

Multifamily

- Charging for multifamily housing residents
- \$67M awarded for ~6,500 chargers

Rural

- Charging for rural areas
- \$20.6M awarded for 17 projects

Hydrogen

- Hydrogen refueling station operations and maintenance
- \$9.5M awarded for activities at 45 stations

Commercial Corridors

- Medium- and heavy-duty infrastructure along designated corridors
- \$34M awarded for 3 projects

Emerging Areas

- Infrastructure for aviation, marine, rail, off-road, and green zones
- \$50M awarded for 6 projects

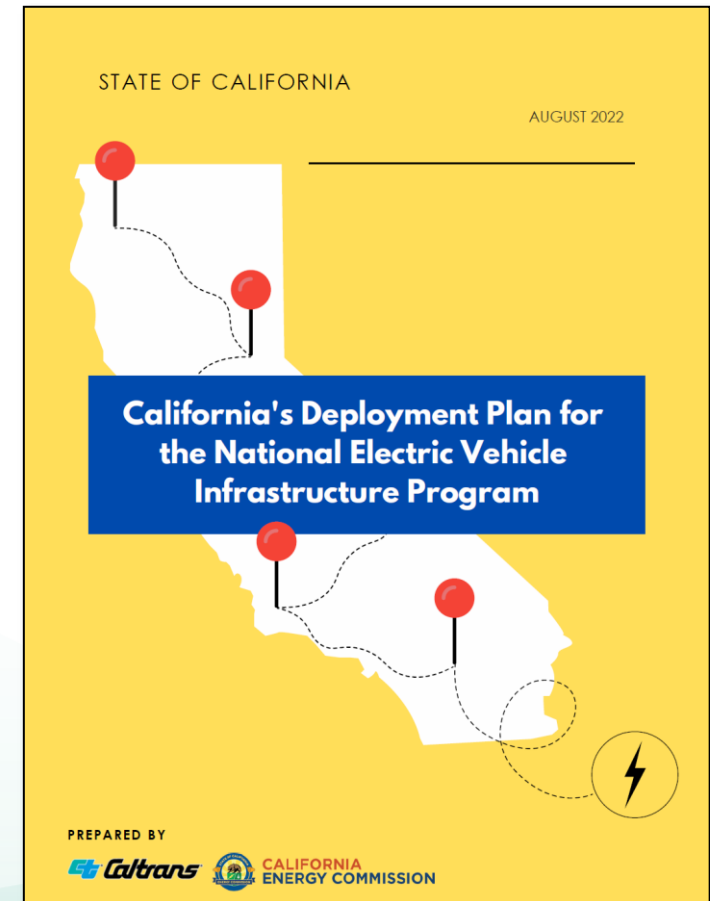
Tribal

- Address barriers to zero-emission vehicles identified by Tribes
- \$10M



Administering and Applying for Federal Funding

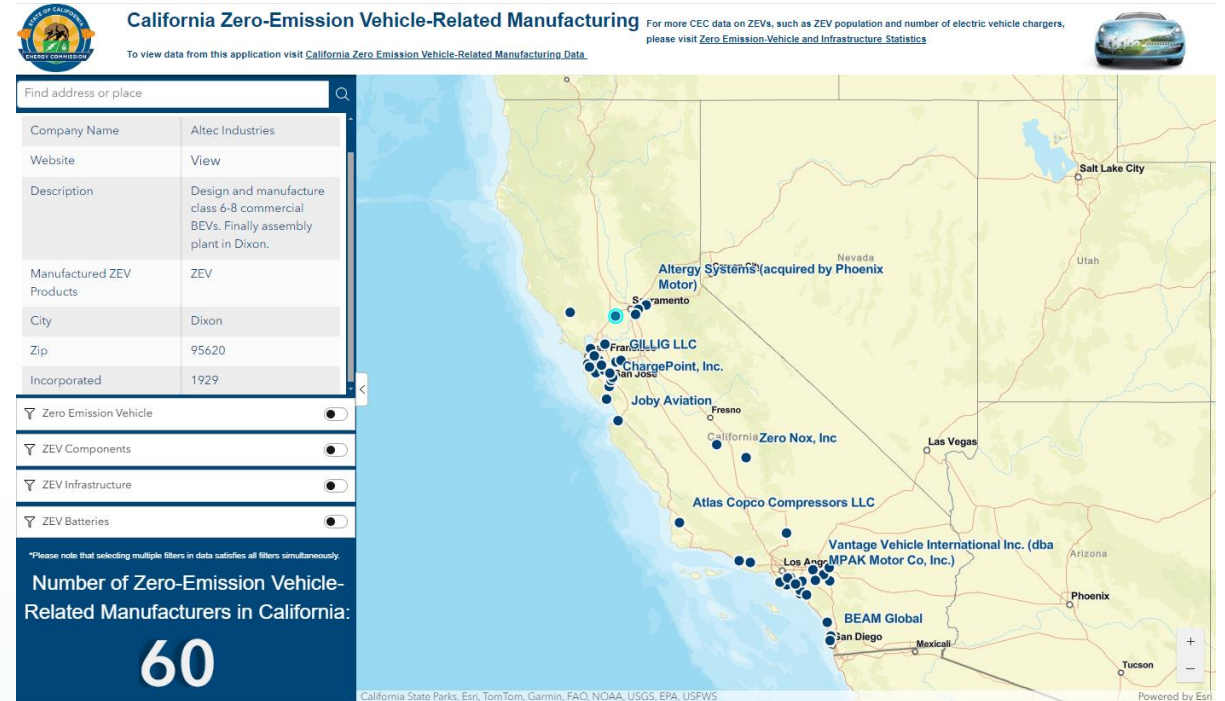
- National Electric Vehicle Infrastructure (NEVI) Program
 - \$384M for California over 5 years
- Vehicle Charger Reliability and Accessibility Accelerator (EVC RAA) Program
 - Caltrans awarded \$63.7 million
- Charging and Fueling Infrastructure (CFI) Discretionary Grant Program





Manufacturing Grants

- Zero-Emission Transportation Manufacturing
 - \$197.9M for 13 projects
- PowerForward ZEV Battery Manufacturing Block Grant Program
 - 2–7 projects, \$35M



Source: CEC, [California Zero-Emission Vehicle-Related Manufacturing](#)





Workforce Training and Development



Source: Victor Valley High School

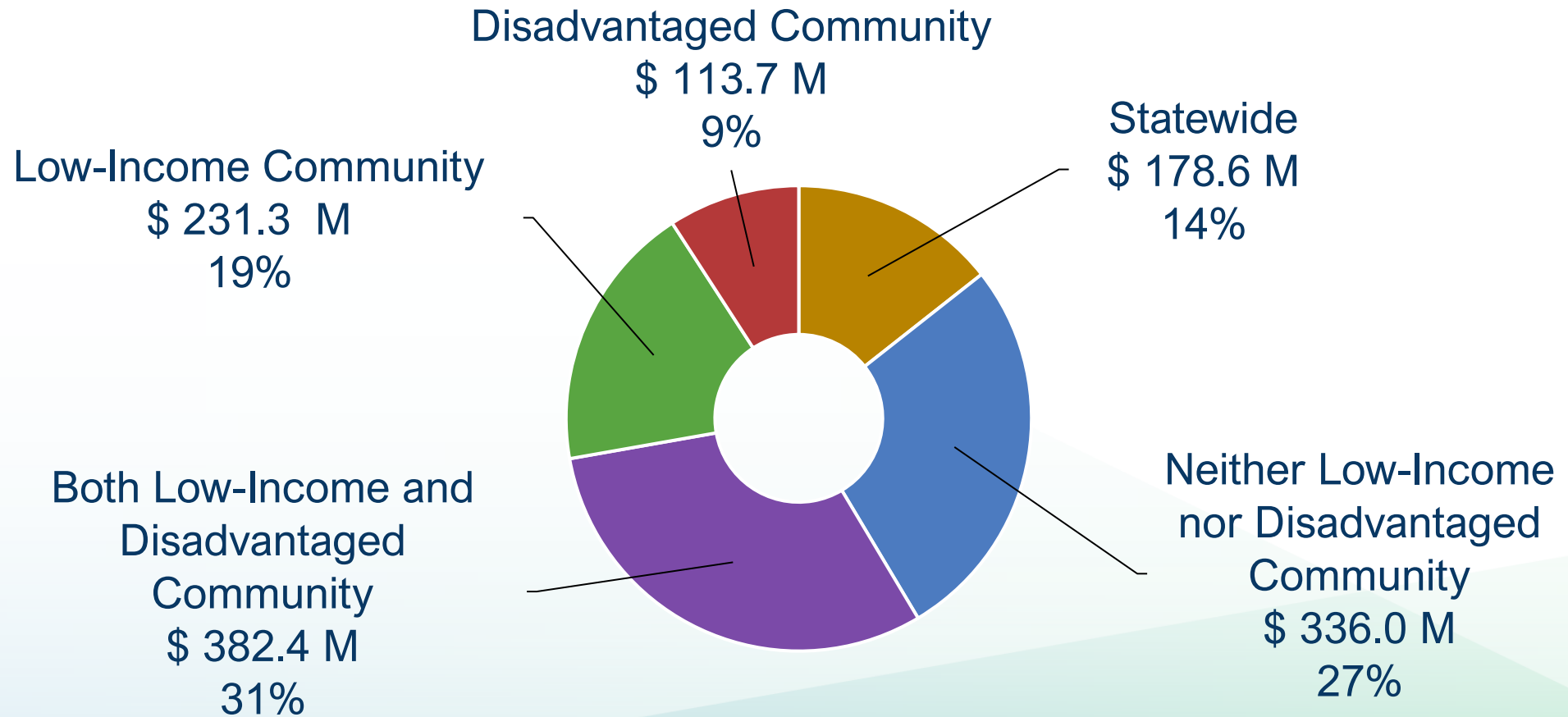
- Interagency collaboration
- Solicitations
 - ZEV High School Pilot
 - Electric School Bus Training
 - IDEAL ZEV Workforce Pilot
 - Tribal Infrastructure, Planning, and Workforce Training and Development
- Draft ZEV Workforce Training and Development Strategy





Funding in Disadvantaged and Low-Income Communities

Clean Transportation Program Funding in Disadvantaged and Low-Income Communities (in Millions) through July 2023





Questions so far?

- Background for the Clean Transportation Program
- ZEV Infrastructure Planning and Analysis
- Regulations to Improve the ZEV Driver Experience
- **Funding Program Overview**

Next:

- 2024-2025 Investment Plan Update and Allocations



Lunch Break

Meeting will resume at 1:00pm

Investment Plan Update and Advisory Committee Discussion



Benjamin Tuggy, Project Manager, Clean Transportation Program
Investment Plan

Fuels and Transportation Division



Purpose of the Investment Plan

- Guides program investments at high level
 - Focused on zero-emission vehicle fuels and infrastructure and supporting activities (e.g., workforce development)
- Multiyear allocations improve planning
- Controls base funds, not state budget funds



Informing the Investment Plan

- CEC and other state agency analyses
- Consultation with Disadvantaged Communities Advisory Group
- Experience with administering past Investment Plans
- Adjusting for federal funding and state budget augmentations



Investment Plan Schedule



*Tentative
Schedule does not include DACAG consultations



Investment Plan Schedule, cont'd.



*Tentative
Schedule does not include DACAG consultations



2024–2025 Investment Plan Update for the Clean Transportation Program: Draft Staff Report

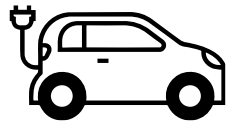


Proposed Investments in Fiscal Years 2024–2025 to 2027–2028

Total: \$1.52 Billion

Not counting base Clean Transportation Program funds after 2024–2025

All amounts subject to change



\$656 Million

Light-Duty EV Charging Infrastructure



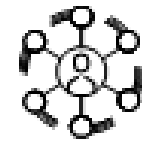
\$810 Million

Medium- and Heavy-Duty ZEV Infrastructure



\$46 Million

Emerging Opportunities



\$3 Million

ZEV Workforce Development

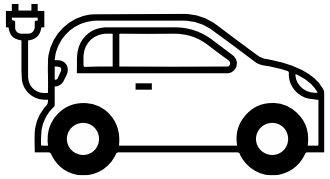
+

\$163 Million

National Electric Vehicle Infrastructure



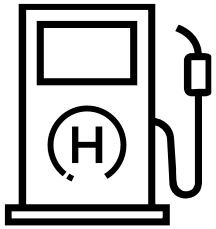
Light-Duty EV Charging



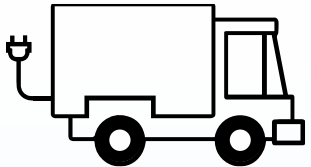
- Equitable at-home solutions for multifamily homes
 - Targeted deployments in rural and priority communities
 - Broad network of high-power fast chargers
- Fiscal year 2024–2025: \$37 million (base)



Medium- and Heavy-Duty ZEV Infrastructure



- Both hydrogen refueling and EV charging
- Zero-emission port infrastructure

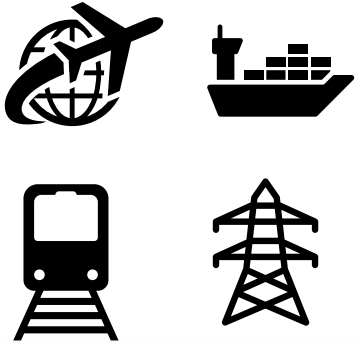


- Fuel thousands of trucks and off-road equipment

➔ Fiscal year 2024–2025: \$55.2 million (base) and \$160 million (General Fund—school bus charging)



Emerging Opportunities

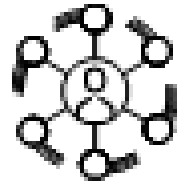


- Sectors early in transition to zero emission including aviation, marine, and rail
 - Vehicle-grid integration to support grid-friendly charging
- Projected Fiscal Year 2025–2026 only: \$46 million (Greenhouse Gas Reduction Funds)



Workforce Training and Development

- Training and workforce development programs
 - Prioritize disadvantaged and low-income communities
- Fiscal year 2024–2025: \$3 million (base)





Proposed Funding Allocations Table 2024–2025

Category	Eligible Fuel Types	Funding Source	2024–2025
Light-Duty Charging Infrastructure	Electric	Clean Transportation Program (Base)	\$37.0
Medium- and Heavy-Duty Infrastructure	Electric, Hydrogen	Base	\$55.2
School Bus Infrastructure	Electric	General Fund	\$160.0
Workforce Training and Development	Electric, Hydrogen	Base	\$3.0
		Total Base	\$95.2
		Total General Fund	\$160.0

Not including estimated \$82 million in NEVI funds—federal fiscal year 2025



Estimated Future Funding Allocations Table

Category	Eligible Fuel Types	Funding Source	2025–2026	2026–2027	2027–2028
Light-Duty Charging Infrastructure	Electric	Clean Transportation Program (Base)*	-	-	-
Light-Duty Charging Infrastructure	Electric	Greenhouse Gas Reduction Fund (GGRF)	\$140	\$80	\$219
Equitable At-Home Charging	Electric	GGRF	\$60	\$40	\$80
Medium- and Heavy-Duty Infrastructure	Electric, Hydrogen	Base*	-	-	-
Drayage Truck Infrastructure	Electric, Hydrogen	GGRF	\$50	\$49	\$50
School Bus Infrastructure	Electric	General Fund	\$26.3	-	-
School Bus Infrastructure	Electric	Reimbursements	\$63.7	-	-
Clean Truck, Bus, and Off-Road Equipment Infrastructure	Electric, Hydrogen	GGRF	\$89	-	\$137
Port ZEV Infrastructure	Electric, Hydrogen	GGRF	-	\$130	-
Emerging Opportunities	Electric, Hydrogen	GGRF	\$46	-	-
Workforce Training and Development	Electric, Hydrogen	Base*	-	-	-
		Total Base*	-	-	-
		Total GGRF, General Fund, and Reimbursements	\$475	\$299	\$486

Not including five years of NEVI funds, including estimated \$82 million—federal fiscal year 2026

*Base allocations not proposed yet



Questions for Consideration

- Given the evolving state budget and federal funding context, does the proposed allocation of Clean Transportation Program base funds strike the right balance?
 - Light-duty (\$37M)
 - Medium and heavy-duty (\$55.2M)
 - Workforce development (\$3M)



Questions for Consideration, cont'd.

- What are your high-level recommendations for **light-duty** infrastructure?
- What are your high-level recommendations for **medium- and heavy-duty** infrastructure?
- For both sectors, are there specific recommendations for **equity** that we should consider?



All Questions for Consideration

- Given the evolving state budget and federal funding context, does the proposed allocation of Clean Transportation Program base funds strike the right balance?
 - Light-duty (\$37M)
 - Medium and heavy-duty (\$55.2M)
 - Workforce development (\$3M)
- What are your high-level recommendations for light-duty infrastructure?
- What are your high-level recommendations for medium- and heavy-duty infrastructure?
- For both sectors, are there specific recommendations for equity that we should consider?

3-MINUTE TIMER





Public Comment





Closing Links and Contact

- More information: <https://www.energy.ca.gov/programs-and-topics/topics/transportation>
- Submit e-comments by June 21, 2024 at: <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=24-ALT-01>
- Contact: Benjamin.Tuggy@energy.ca.gov