DOCKETED	
Docket Number:	23-ALT-01
Project Title:	2023-2024 Investment Plan Update for the Clean Transportation Program
TN #:	253085
Document Title:	Presentation - Public Meeting of the Advisory Committee for the Clean Transportation Program Investment Plan
Description:	Combined November 14, 2023 2nd Advisory Committee Presentation
Filer:	Spencer Kelley
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	11/13/2023 4:15:49 PM
Docketed Date:	11/13/2023

California Energy Commission

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

November 14, 2023

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-8
- Docket location: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-ALT-01
- Submit written comments to Docket 23-ALT-01.

Deadline for comments is Tuesday, November 28, 2023, by 5:00 P.M.

Meeting Agenda

- Welcome and housekeeping
- Opening remarks by Commissioner Monahan
- Presentations by CEC staff on the Clean Transportation Program, including funding activities, federal funding, community benefits and tribal outreach, and ZEV planning and analysis
- Overview of the revised staff draft version of the *2023–2024 Investment Plan Update*
- Advisory Committee discussion on the *2023–2024 Investment Plan Update*
- Public comment
- Closing remarks

Welcome to the November 14, 2023 Public Meeting of the Advisory Committee for the Clean Transportation Program Investment Plan

Overview of the Clean Transportation Program and Investment Plan Process

November 14, 2023

Benjamin Tuggy, Project Manager for the Clean Transportation Program Investment Plan

Fuels and Transportation Division

Origins of the Clean Transportation Program

- Transportation sector: significant greenhouse gas emissions and public health impacts
- Pollution disproportionately burdens vulnerable and disadvantaged communities
- Clean Transportation Program created to invest in a cleaner, healthier transportation system
- Provides up to $100 million per year

Assembly Bill No. 8

CHAPTER 401

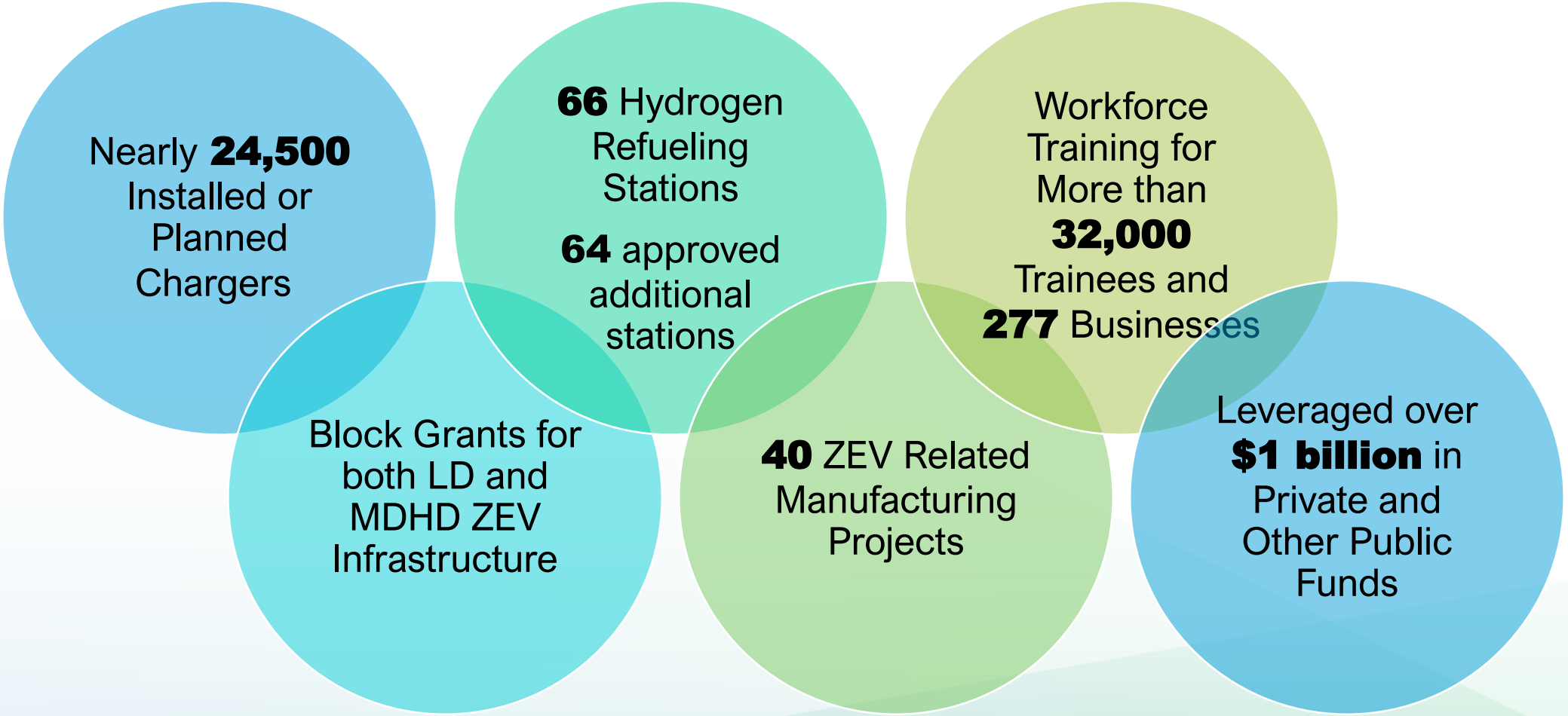
AB 126: Clean Transportation Program Reauthorization

- Program reauthorized through July 1, 2035
- Focus on zero-emission technologies where feasible
- New equity requirements
- Hydrogen carveout reduced from 20% to 15%

Refreshing Clean Transportation Program Advisory Committee

- Current Advisory Committee expires end of 2023
- CEC developing plans for next committee term
- Will soon solicit applications
- Subscribe to Clean Transportation Program updates: https://public.govdelivery.com/accounts/CNRA/signup/31898

Clean Transportation Program Highlights
(as of July 2023)



Purpose of the Investment Plan

- Guides program investments toward meeting state clean transportation goals
- Provides multiyear funding allocations for improved planning and visibility
- Considers state regulations and other funding programs to promote coordination across agencies
- Allocates funding for multiple vehicle and fuel technologies, transportation sectors, and supporting activities (e.g., workforce development)

Commitment to Inclusion, Diversity, Equity and Access

- Seek to provide more than 50% of Clean Transportation Program funds to projects that benefit low-income and disadvantaged communities
  - Required by AB 126 starting in 2025
- Outreach and engagement with DACAG, Clean Transportation Program Advisory Committee, coalitions, and community groups
- Hold public workshops

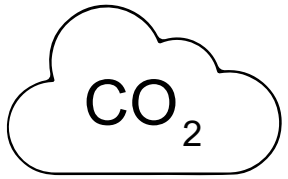
Commitment to Inclusion, Diversity, Equity and Access, cont'd.

- Nonprofits eligible for certain grants, including charging infrastructure deployment
- Many solicitations incentivize community-based organization involvement
- Exploring additional ways to support nonprofit organizations in ZEV infrastructure deployment
  - Includes nongovernmental and community-based organizations

Program Community Benefits

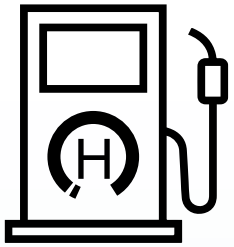
- Planning a public process to define, measure, track, and target more program community benefits.
- Will explore community benefits beyond project location and GHG reductions such as health, mobility options, workforce, economic, and more.
- First workshop was held at the end of 2022 and the second was held March 2023.

Key California ZEV Policy Goals



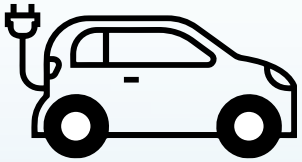
Climate

- Reduce GHG emissions to 40 percent below 1990 levels by 2030
- Achieve carbon neutrality by 2045



ZEV Infrastructure

- 250,000 electric vehicle chargers, including 10,000 DC fast chargers, by 2025
- 200 hydrogen refueling stations by 2025

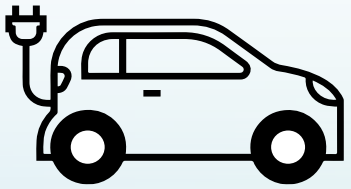


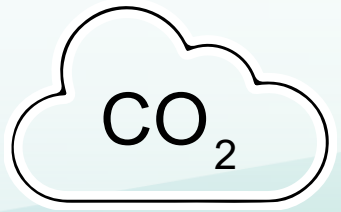
ZEV Fleet

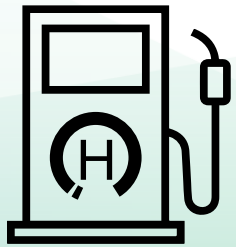
- (See next)

Executive Order N-79-20 Goals

- ✓ 100% zero-emission in-state sales of new passenger cars and trucks by 2035 **(CARB's Advanced Clean Cars II Regulations)**
- ✓ 100% zero-emission medium- and heavy-duty vehicles by 2045 for all operations where feasible and by 2035 for drayage trucks **(CARB's Advanced Clean Trucks Regulation)**
- ✓ 100% zero-emission off-road vehicles and equipment by 2035 where feasible



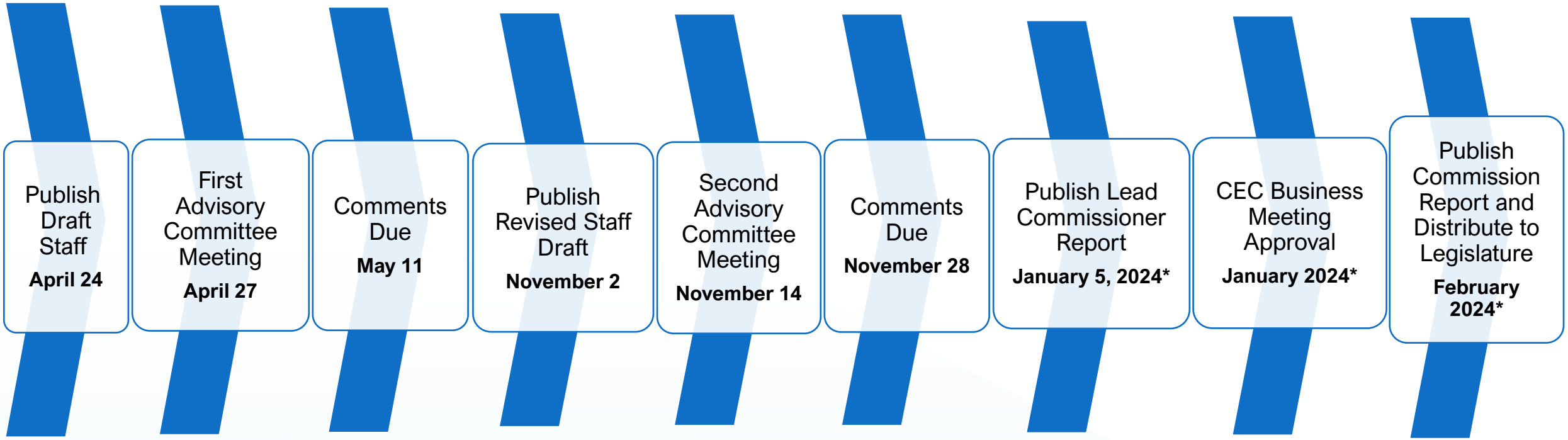




Informing the Investment Plan

- *AB 2127 Electric Vehicle Charging Infrastructure Assessment*
- *SB 1000 Electric Vehicle Charging Infrastructure Deployment Assessment*
- Zero-Emission Vehicle Infrastructure Plan (ZIP)
- Public meetings/workshops with the Advisory Committee
- Consultation with the Disadvantaged Communities Advisory Group
- Experience with administration of past Investment Plans
- Adjusting for federal government and state budget augmentations

Investment Plan Process & Schedule



*Tentative
Schedule does not include DACAG consultations

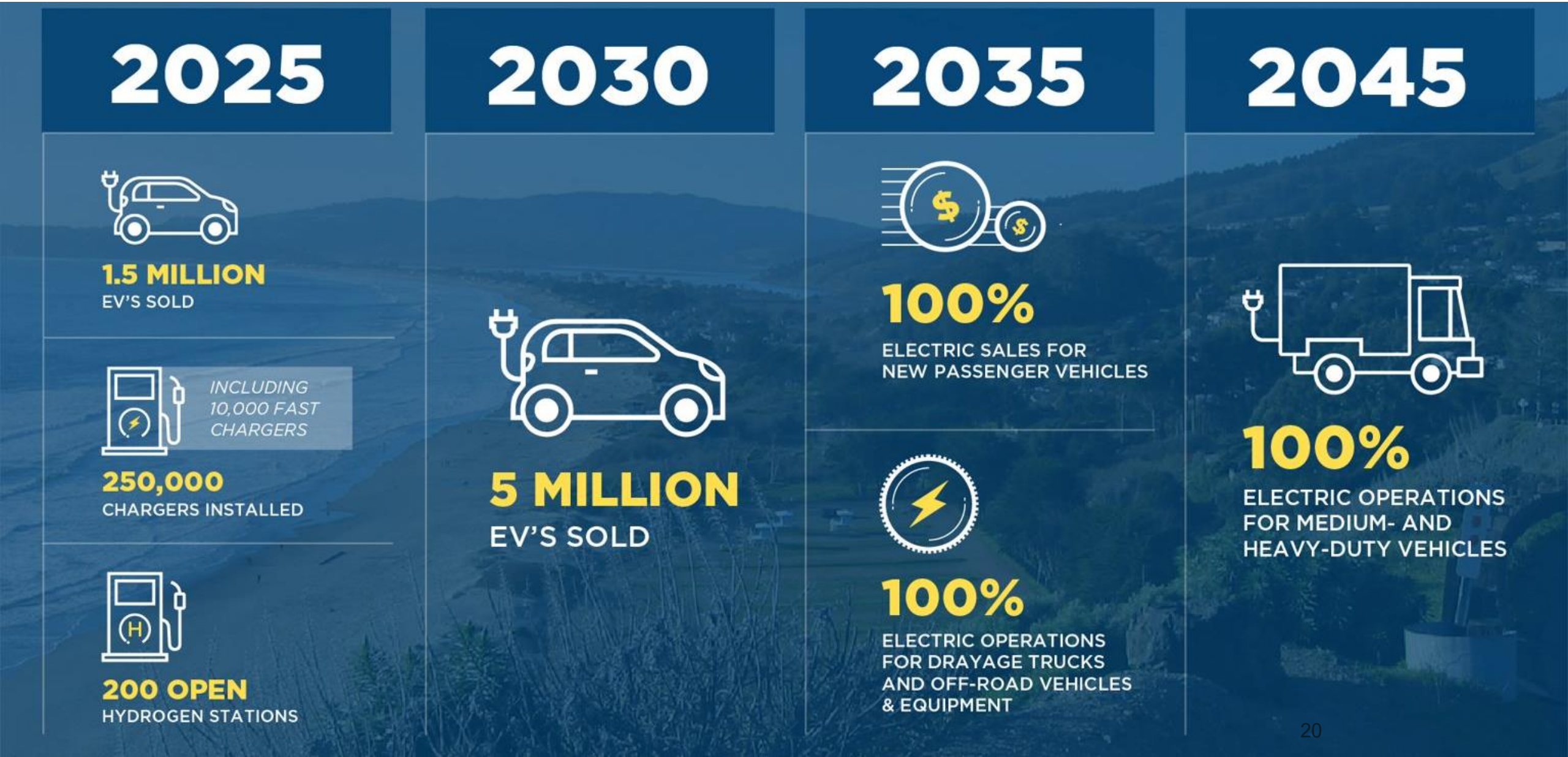
ZEV Planning and Analysis Updates

AB 2127 Updates

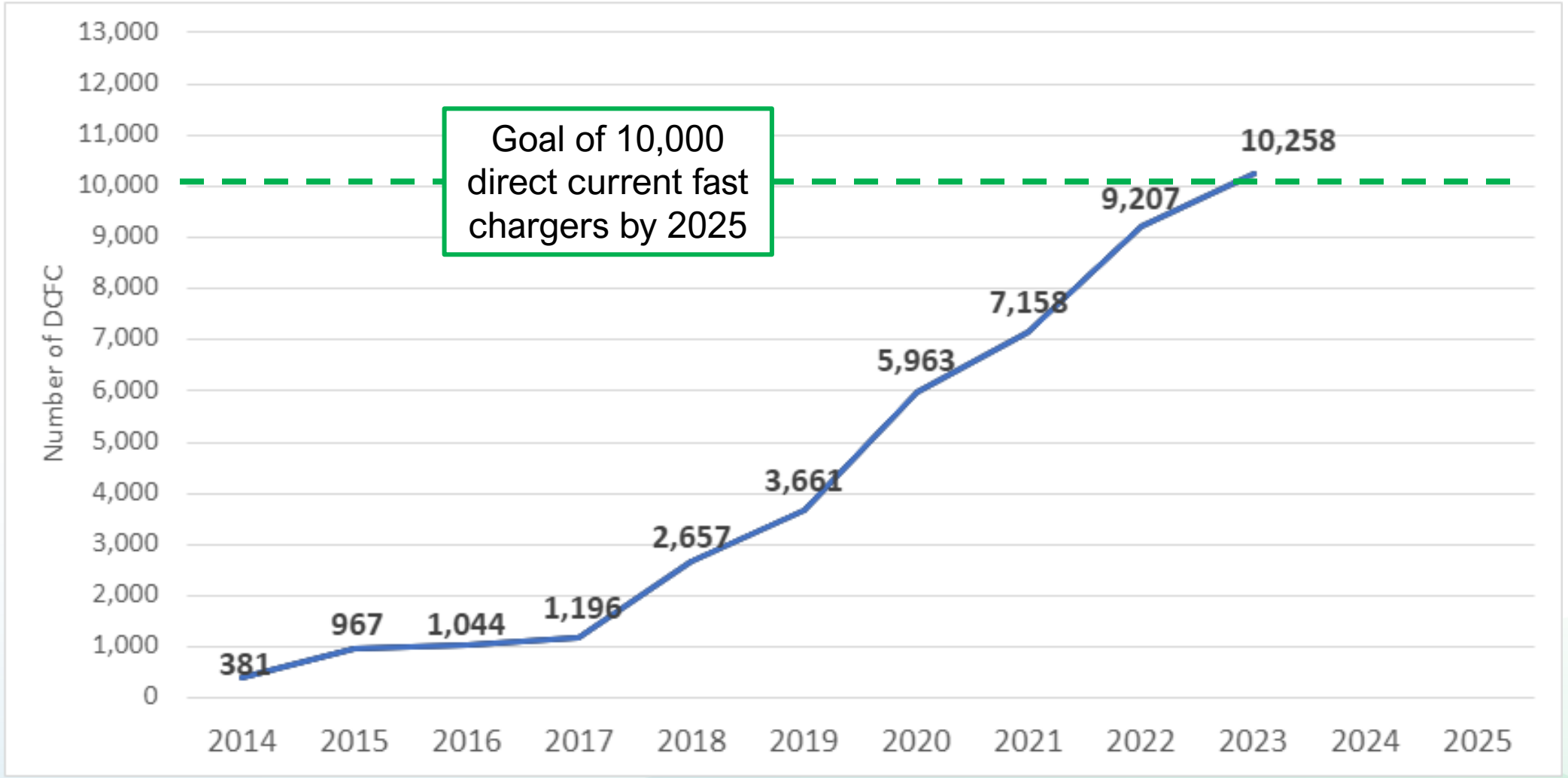
November 14, 2023

Adam Davis, Air Pollution Specialist
Fuels and Transportation Division

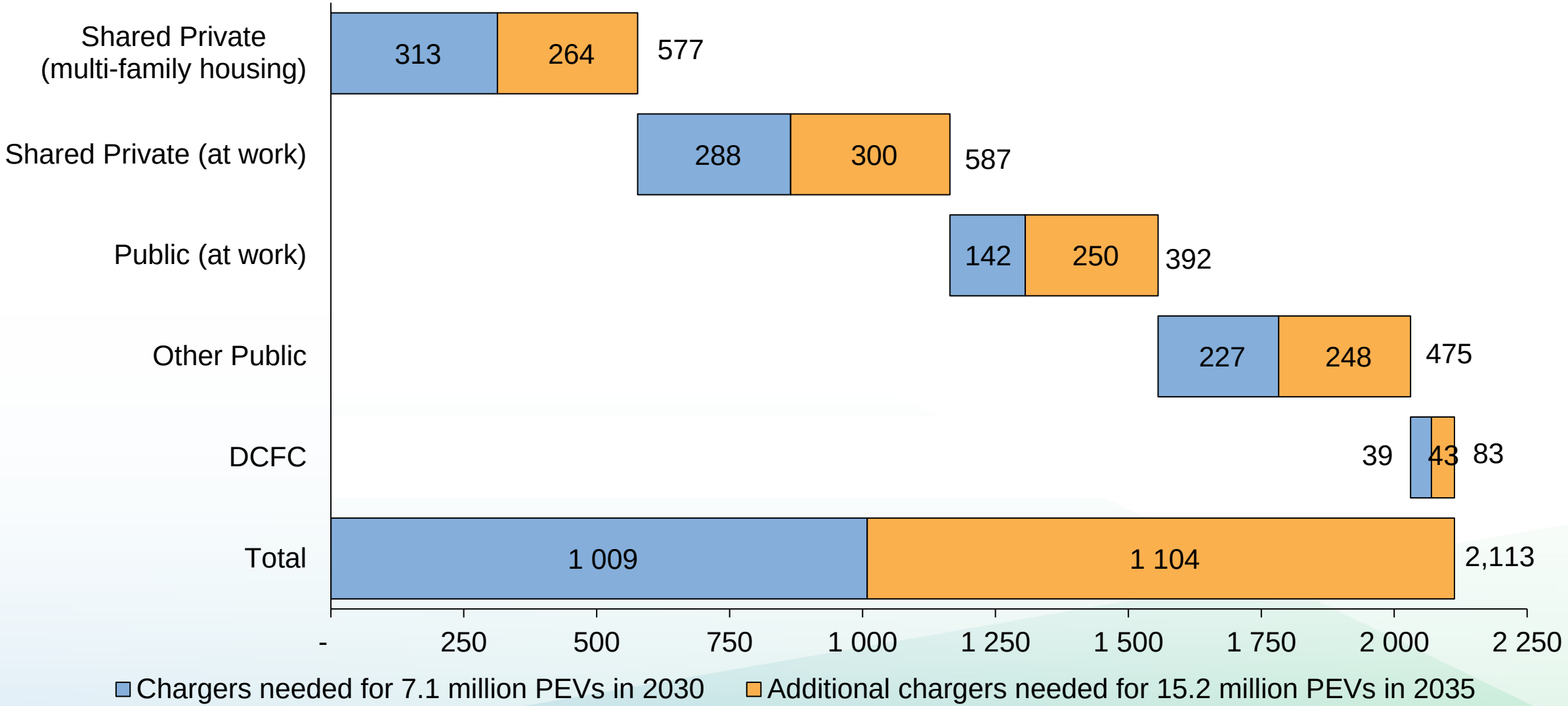
AB 2127 Assessment goals



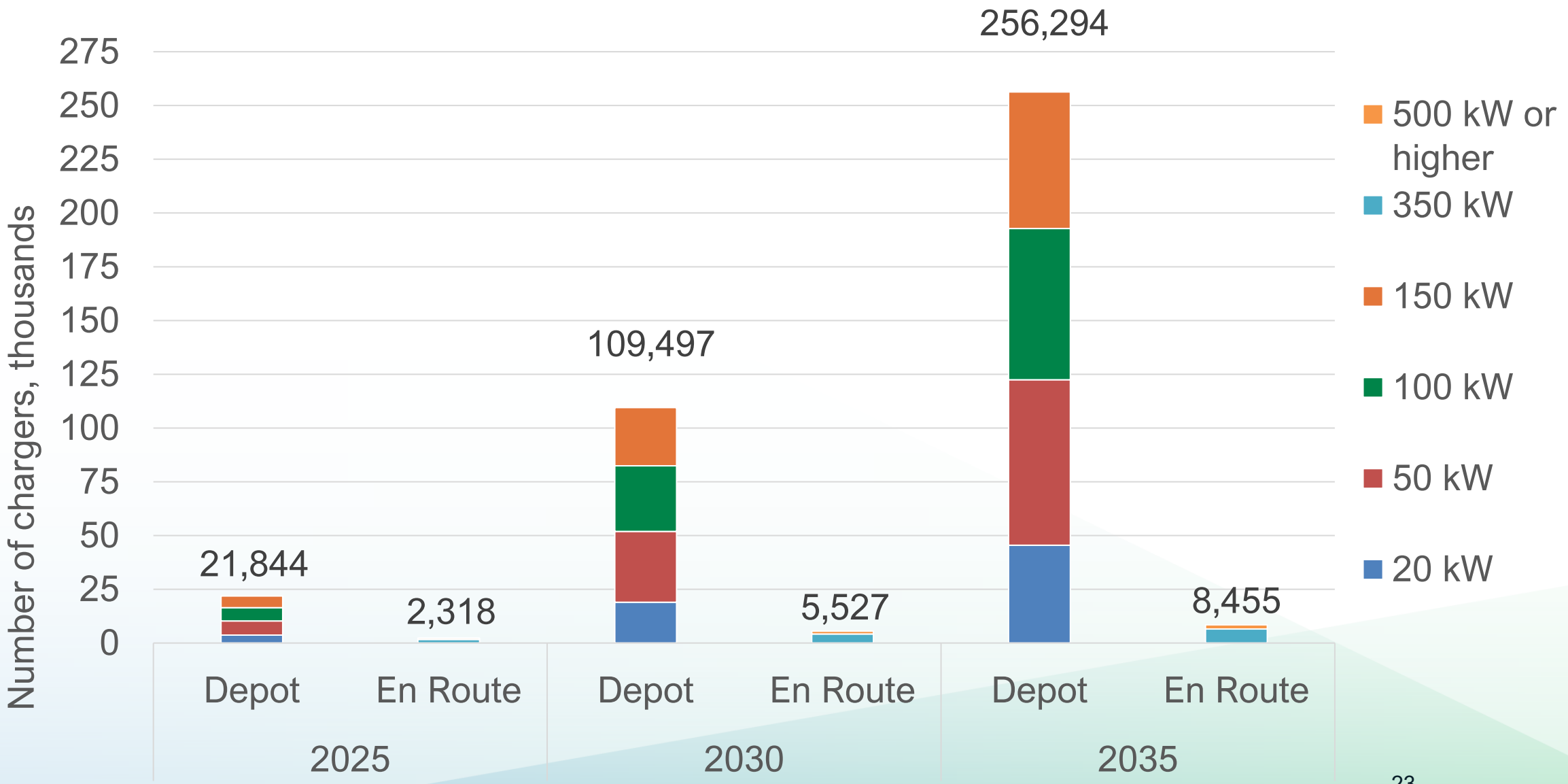
10,000 Fast Chargers in 2023



Draft light-duty vehicle charging needs (in thousands)



Draft medium-/heavy-duty charging needs



Staff Proposal for Regulating EV Charger Reliability and Data Collection

November 14, 2023

Dustin Schell, Air Resources Engineer

Fuels and Transportation Division

Improving reliability: Non-regulatory efforts

CEC strategies to improve EV charging reliability through funding opportunities

- Incorporating uptime, recordkeeping, reporting, and maintenance requirements in grants since 2021
- Contracting with UC Davis to field test 3,600 chargers
- Funding VOLTS, a testing symposium for charging operators and automakers
- Seeking opportunities to standardize and accelerate EV - charger interoperability

Improving reliability: Proposed regulations

AB 2061 requires the CEC to develop uptime reporting requirements for publicly- and ratepayer-funded chargers installed on or after 1/1/2024

Proposed regulations require:

- Semiannual reporting of uptime & successful / failed charging session data
- Recordkeeping
- Automatic transmission of data for networked chargers

AB 2061 also requires a public assessment of reliability starting in 2025.

Improving modeling and monitoring: Proposed inventory and utilization regulation

The CEC is proposing to collect data on:

- Charger **inventory** reporting: How many chargers are there in California and where are they located?
- Charger **utilization** reporting (networked chargers): How often and for how long are chargers used?
- Applicable to all public and shared-private chargers in California

Recap of proposed regulations

Regulation	Requirement	Applies to
Reliability reporting	• Charging networks / operators must report charger reliability information semi-annually	• EV publicly funded chargers installed on or after Jan 1, 2024*
Charger counting	• Must report the location, number, and other characteristics of chargers semi-annually	• All EV chargers*
Utilization reporting	• Charging networks must report utilization of chargers semi-annually	• Networked chargers*

**Chargers installed for private use at single-family residences and multi-family dwelling of four or fewer units are exempt from the proposed regulations*

Reliability next steps

CEC staff are evaluating stakeholder feedback to the proposed regulation

- Staff held a public workshop on Oct 9, 2023 to receive stakeholder feedback.
- Public comment was accepted through October 25, 2023

Newly passed legislation (AB 126) requires the CEC to:

- Adopt uptime, operations, and maintenance requirements
- Set standards to notify customers about availability and accessibility of chargers
- Staff are developing modifications to proposed regulations and will solicit public feedback

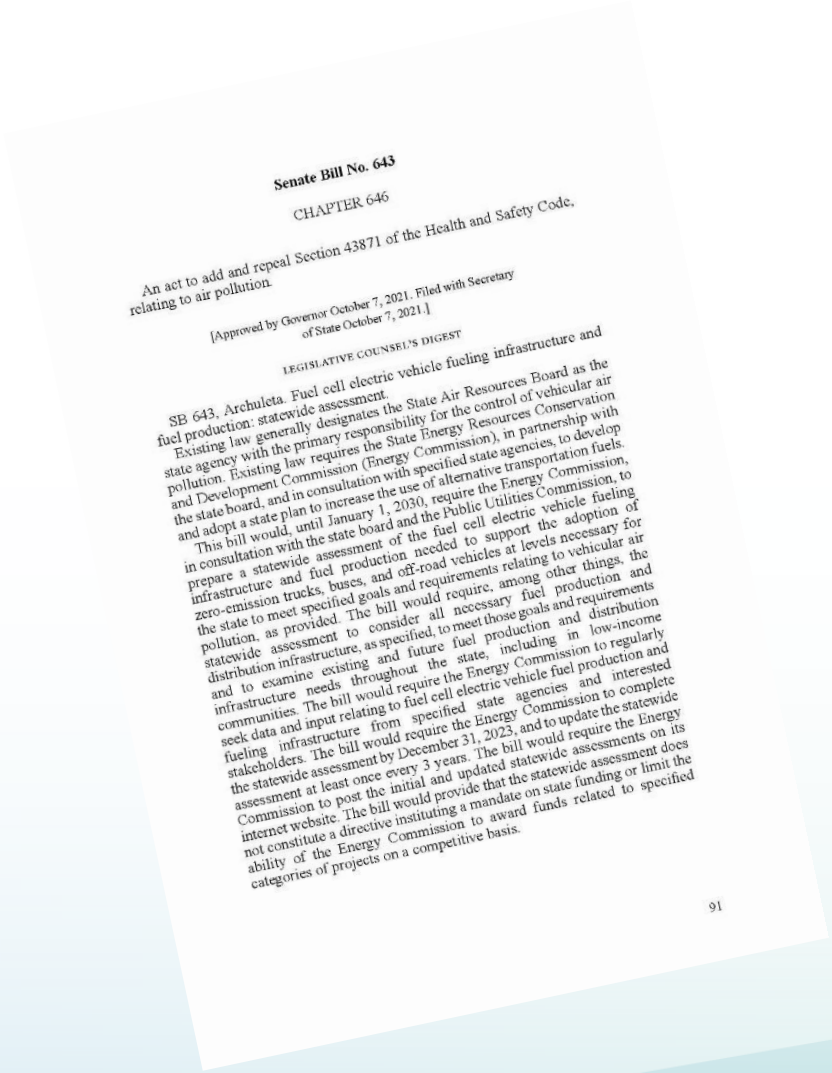
Hydrogen Infrastructure Needs for Medium- and Heavy-duty Vehicles (per SB 643)

November 14, 2023

Kristi Villareal, Air Pollution Specialist

Fuels and Transportation Division

Inaugural Assessment of Hydrogen Infrastructure Needs for Medium- and Heavy-duty Vehicles



Senate Bill No. 643

CHAPTER 646

An act to add and repeal Section 43871 of the Health and Safety Code, relating to air pollution.

[Approved by Governor October 7, 2021. Filed with Secretary of State October 7, 2021.]

LEGISLATIVE COUNSEL'S DIGEST

SB 643, Archuleta. Fuel cell electric vehicle fueling infrastructure and fuel production: statewide assessment.

Existing law generally designates the State Air Resources Board as the state agency with the primary responsibility for the control of vehicular air pollution. Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission), in partnership with the state board, and in consultation with specified state agencies, to develop and adopt a state plan to increase the use of alternative transportation fuels.

This bill would, until January 1, 2030, require the Energy Commission, in consultation with the state board and the Public Utilities Commission, to prepare a statewide assessment of the fuel cell electric vehicle fueling infrastructure and fuel production needed to support the adoption of zero-emission trucks, buses, and off-road vehicles at levels necessary for the state to meet specified goals and requirements relating to vehicular air pollution, as provided. The bill would require, among other things, the statewide assessment to consider all necessary fuel production and distribution infrastructure, as specified, to meet those goals and requirements and to examine existing and future fuel production and distribution infrastructure needs throughout the state, including in low-income communities. The bill would require the Energy Commission to regularly seek data and input relating to fuel cell electric vehicle fuel production and fueling infrastructure from specified state agencies and interested stakeholders. The bill would require the Energy Commission to complete the statewide assessment by December 31, 2023, and to update the statewide assessment at least once every 3 years. The bill would require the Energy Commission to post the initial and updated statewide assessments on its internet website. The bill would provide that the statewide assessment does not constitute a directive instituting a mandate on state funding or limit the ability of the Energy Commission to award funds related to specified categories of projects on a competitive basis.

91

- Established by Senate Bill 643 (Archuleta, 2021)
- Statewide assessment of hydrogen refueling infrastructure for medium- and heavy-duty FCEVs, off-road applications and clean H2 supply
- Inaugural report due December 31, 2023, every 3 years through January 1, 2030

Unprecedented Federal and State Investments in Hydrogen

- Bipartisan Infrastructure Law/Infrastructure Investments & Jobs Act
  - One of the largest investments in U.S. DOE's history: $7 billion toward the establishment of Regional Clean Hydrogen Hubs
    - $1.2 billion awarded to California
- Inflation Reduction Act (IRA) provides a tax credit of up to $3/kg of clean hydrogen produced.

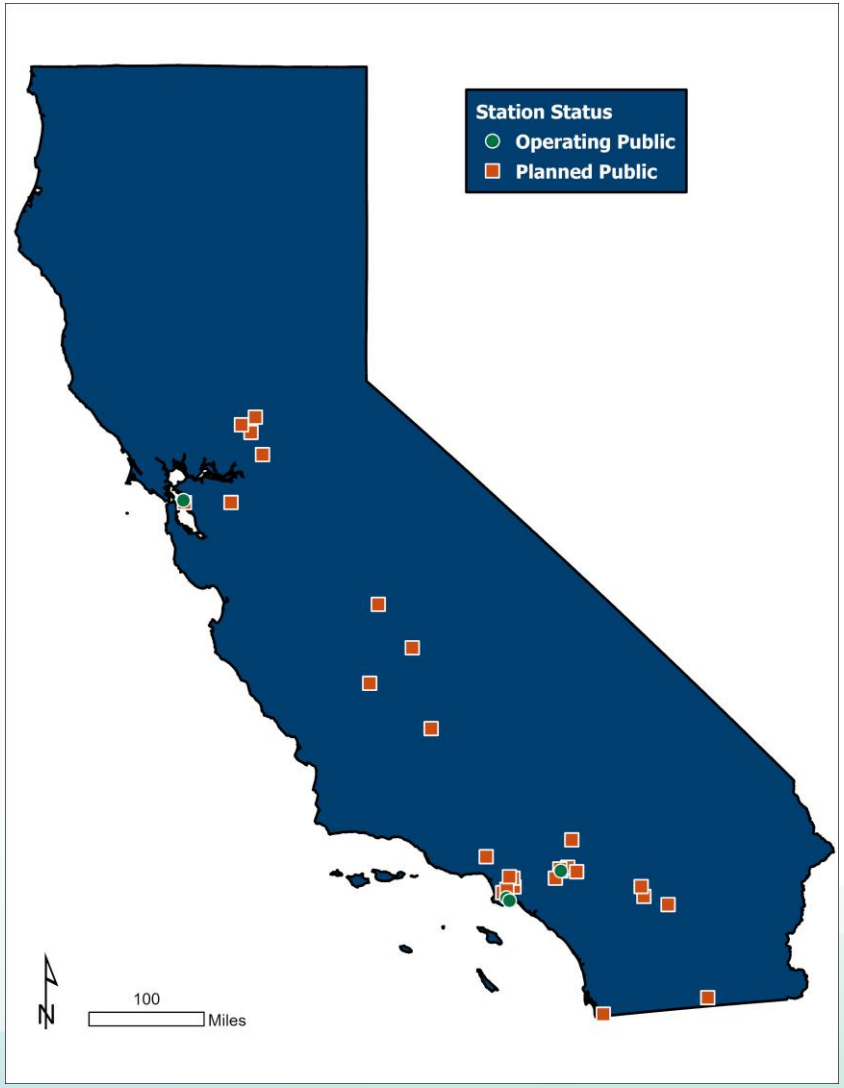
Fuel Cell Electric Buses

- Innovative Clean Transit regulation — public transit agencies must transition gradually to 100% zero-emission fleets
- In 2018 — three transit agencies deploying/planning to deploy… now, 42 agencies
- Successful real-world application of heavy-duty fuel cell electric transportation

Source: Center for Transportation and the Environment

Current and Planned Publicly Available Hydrogen Fueling Stations for Medium-/Heavy-duty Vehicles

- Three stations are operating in Southern California
- The remaining 22 stations on the map are in varying stages of development
- The CEC is developing an interagency map that will show the station location along with major corridors



Preliminary Results for Medium- and Heavy-duty FCEV Infrastructure

The *SB 643 Staff Report* includes four scenarios of medium- and heavy-duty hydrogen FCEV refueling infrastructure, which produced a wide range of results:

In 2030: 1 to 602 stations

In 2035: 11 to 2,157 stations

Clean Hydrogen Production

- Clean hydrogen production in California is nearly non-existent
- The CEC has awarded $22 million to six clean hydrogen fuel projects that will increase production by nearly 40,000 kg per day
- Four of the projects will use electrolysis, while two will produce hydrogen through gasification.
- ARCHES' goal includes ramping production to over 500 tons (454,000 kg) per day by 2030

National Electric Vehicle Infrastructure (NEVI) Formula Program

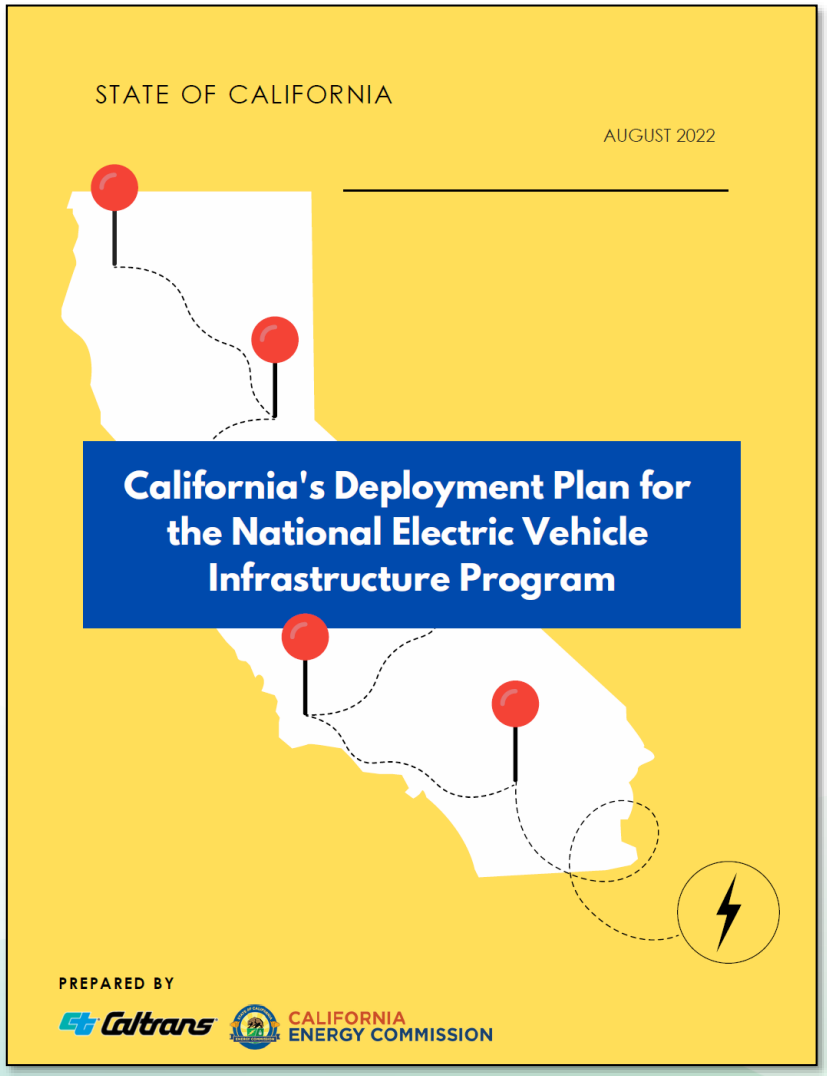
November 14, 2023

Ben De Alba, NEVI Lead
Fuels and Transportation Division
ZEV Acceleration Office

National Electric Vehicle Infrastructure (NEVI) Program

Background

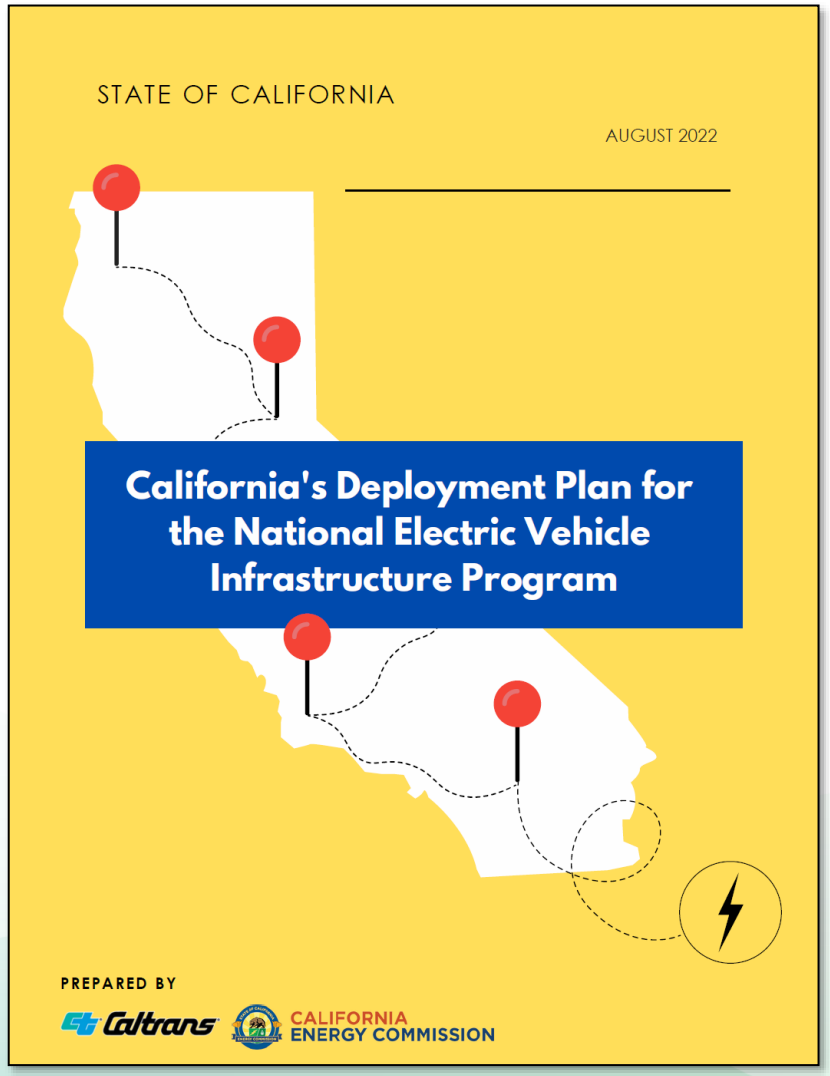
1. Created by the Infrastructure and Investment Jobs Act of 2021
2. $384M for California over 5 years
3. Partnership between CEC and Caltrans
4. Must submit an annual deployment plan



National Electric Vehicle Infrastructure (NEVI) Program, cont'd.

Program Objectives

1. Support DC fast charging stations
2. At least four fast chargers every 50 miles or less
3. 50% of chargers must be in DAC/LIC & 40% in Justice40 communities



Interagency Agreement Overview

- ✓Formalizes partnership between CEC and Caltrans
- ✓Makes CEC official lead for NEVI administration
- ✓Covers the duration of the NEVI program

NEVI Solicitation #1

- GFO-23-601 released October 26, 2023
- $40.5 million in NEVI formula funds
- 6 corridor projects consisting of 270 DC fast chargers and 26 new stations

Other Federal Funding

Submitted applications to the following federal programs in partnership with Caltrans:

- FHWA's Charging and Fueling Infrastructure Discretionary Grant Program on June 13, 2023
- FHWA's Electric Vehicle Charger Reliability and Accessibility Accelerator NOFO on November 13, 2023

Clean Transportation Program Funding Activities Updates

Light-Duty EV Charging Infrastructure

November 14, 2023

Madison Jarvis, Air Pollution Specialist

Fuels and Transportation Division

Competitive Grant Solicitations Versus Block Grants

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

Light-Duty EV Infrastructure Funding Solicitations

CHiLL-2

- High-density, high-visibility level 2 charging installations
- $24M → $25.7M
- 7 applications
- 5 awards
- 1,971 Level 2 charging ports
- Daly City, Irvine, Los Angeles, Oakland, San Diego

REACH 2.0

- EV charging for multi-family housing residents
- $20M
- Received many applications
- NOPA still being finalized

FAST

- DC Fast Charging for on-demand transportation services and the public
- $10.5M
- 10 applications; 3 awards
- 136 DCFC ports
- Sacramento and Southern CA

Source: Bay Area Air Quality Management District

Light-Duty EV Infrastructure Block Grants

CALeVIP 1.0

- Closed to new applications
- Awarded $226 million in rebates
- 1,934 DCFCs
- 9,747 Level 2 chargers
- 59% Disadvantaged and low-income communities

Photo credit: CEC

CALeVIP 2.0

- Application window (Open)
  - Closes December 12, 2023
  - $38 million available
- 396 DCFCs funded in first window
- 100% Disadvantaged and low-income communities

Photo credit: PlugShare

Communities in Charge

- Application window (Open)
  - Closes December 22, 2023
  - $38 million available
- 4,894 Level 2s funded in first window
- 76% Disadvantaged and low-income communities

Photo credit: IKON

Light-Duty Hydrogen Infrastructure

November 14, 2023

Miki Crowell, Air Pollution Specialist

Fuels and Transportation Division

Light-Duty Hydrogen Refueling Infrastructure

- $257 million allocated (excluding the FY 2023–2024 allocation)
- Six solicitations so far to support development of light-duty stations
- 130 stations expected by 2027
  - 66 stations achieved open retail status
    - 12 stations are temporarily non-operational
  - 31 stations in development
  - Additional 33 stations planned

Seal Beach Light-Duty Station
Photo Credit: Hydrogen Fuel Cell Partnership

Light-Duty Fuel Cell Electric Vehicles

- Cumulative sales: 17,442 FCEVs (from 2010 through 2023 Q3)
- Estimated on-road population: 14,809 FCEVs
- 34,500 FCEVs projected by 2025
- 65,600 FCEVs projected by 2028

Barriers to FCEV Market Growth

- Station reliability and availability issues
  - Equipment failures
  - Supply chain constraints
  - Hydrogen supply disruptions
- Hydrogen price spikes
  - Average price in 2022: $14.95/kg
  - Average price in 2023 Q1: $26.00/kg
  - Highest price today: $36.00 (equivalent to $14.40 for a gallon of gasoline)

Addressing Barriers

- Operations and Maintenance Solicitation (GFO-23-604) released on November 3, 2023
- Manufacturing grant to produce hydrogen refueling equipment in California
- FCEV Customer Experience Workshop on November 6, 2023
- Contract with UC Davis to conduct a customer survey

Medium- and Heavy-Duty ZEV Infrastructure Investments

November 14, 2023

Alex Wan, Energy Commission Specialist I

Fuels and Transportation Division

EnergIIZE Project

EV Fast Track

- First Come, First Served
- $24M Awarded (lifetime)
- 51 Projects Awarded
- 71% Awarded Meet Equity Criteria

Hydrogen

- Competitive
- $48.6M Awarded (lifetime)
- 14 Projects Awarded
- 100% Awarded Meet Equity Criteria

EV Jump Start

- Competitive
- $47.43M Funding Available (lifetime)
- 28 Projects Awarded *(2023 awards pending)*
- 100% Applicants Meet Equity Criteria

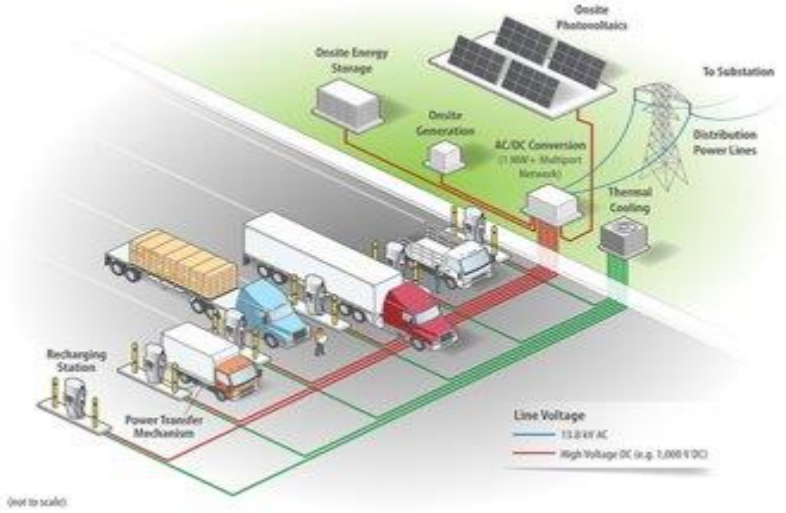
Public Charging

- Competitive
- $19.72M Funding Available (lifetime)
- 22 Projects Awarded *(2023 awards pending)*
- 46% Applicants Meet Equity Criteria

Implementation of Medium- and Heavy-duty ZE Infrastructure Blueprints

Solicitation Concept (GFO-23-603)

- Implementation of CEC-approved blueprints (GFO-20-601)
  - "Blueprints for Medium- and Heavy-Duty Zero Emission Vehicle and Infrastructure"
- Released in September 2023; Deadline: November 20, 2023



Source: NREL 1MW Charging Research Project

Project Groups

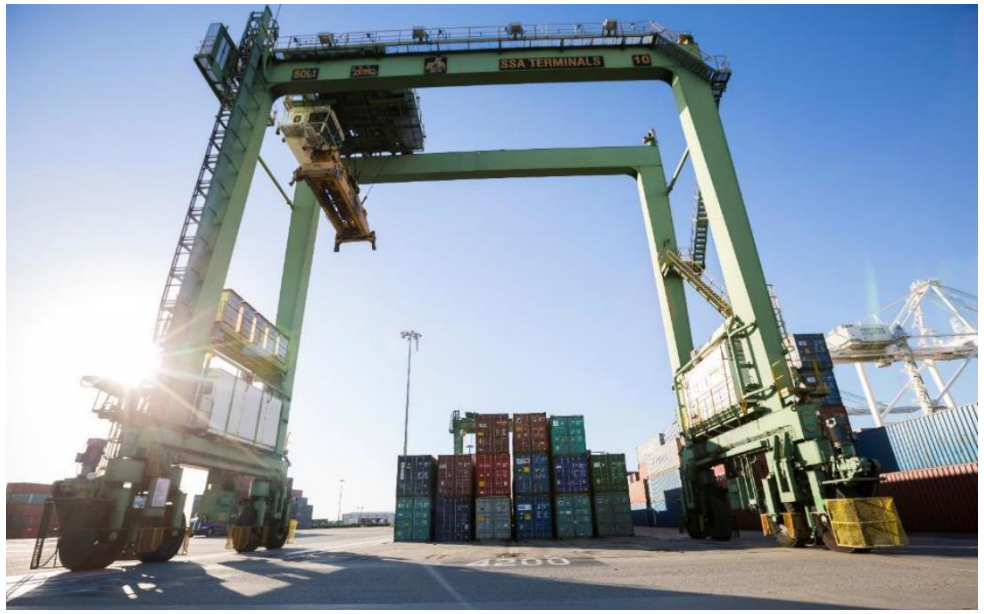
- Charging Infrastructure for Medium- and Heavy-Duty Zero-Emission Vehicles
- Hydrogen Refueling Infrastructure for Medium- and Heavy-Duty Zero-Emission Vehicles

Medium- and Heavy-duty EV Charging and Hydrogen Refueling for Designated Corridors

GFO-23-602: (CRITICAL PATHS)

- Support medium- and heavy-duty ZEV hydrogen refueling and/or charging stations along priority clean freight corridors.
- Released: September 26, 2023
- Up to $20M available
- Applications due: November 29, 2023

Advanced Technology Demonstration and Pilot Projects



Cavotec Rubber-Tired e-Gantry at the Port of Long Beach Harbor

Solicitation information

- $50 million
- Applications due on October 26, 2023.

Emerging Opportunities (in ZEV technology)

- Aviation
- Rail
- Marine

TransPower Battery ElecTruck™ Drayage Truck (EDD-2)

Electric School Bus Bi-Directional Infrastructure

Solicitation Overview

- Charging infrastructure with bi-directional power flow
- Notice of proposed awards posted on September 27, 2023
- $10.8 million proposed to be awarded.

School Bus Unit

- 194 school buses delivered
- 173 school site charging stations constructed/operational

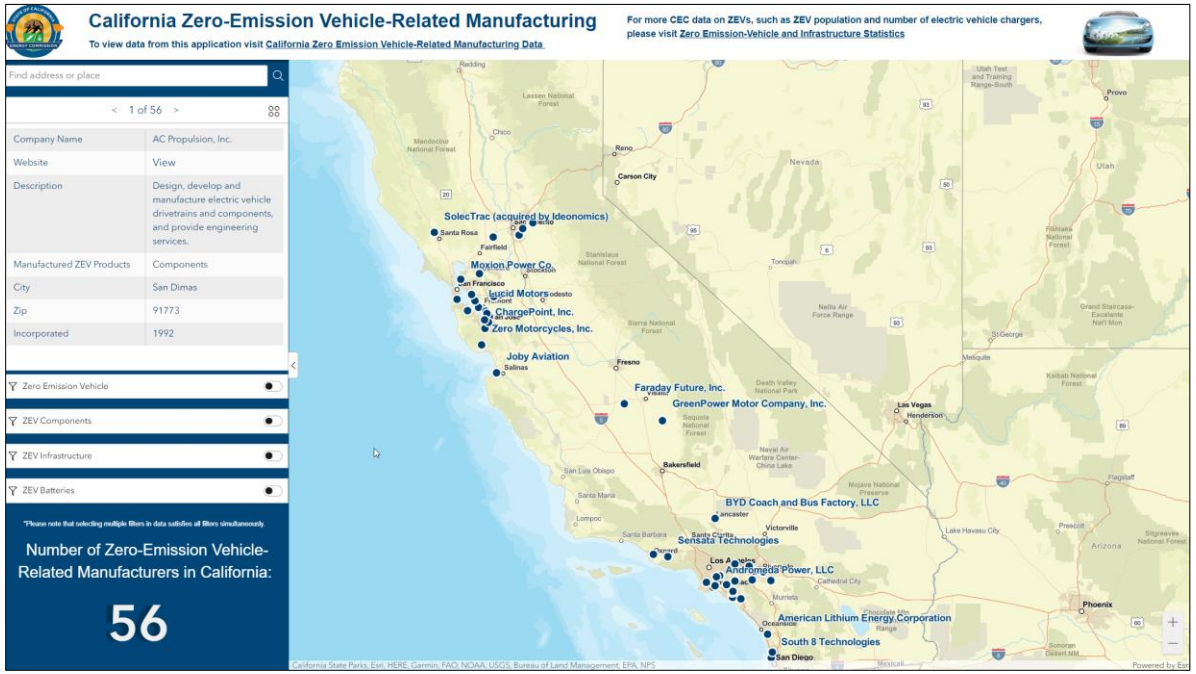
Manufacturing Activities

November 14, 2023

Jonathan Bobadilla, Energy Commission Specialist
Fuels and Transportation Division
Manufacturing and Production Unit

Manufacturing in California

- 14% U.S. Manufacturing Output
- 1.2 Million Jobs
- +23,000 Total CA Manufacturers
- 56 commercial ZEV supply chain manufacturers as of August 2023
- 40 CEC awarded manufacturing projects since 2009

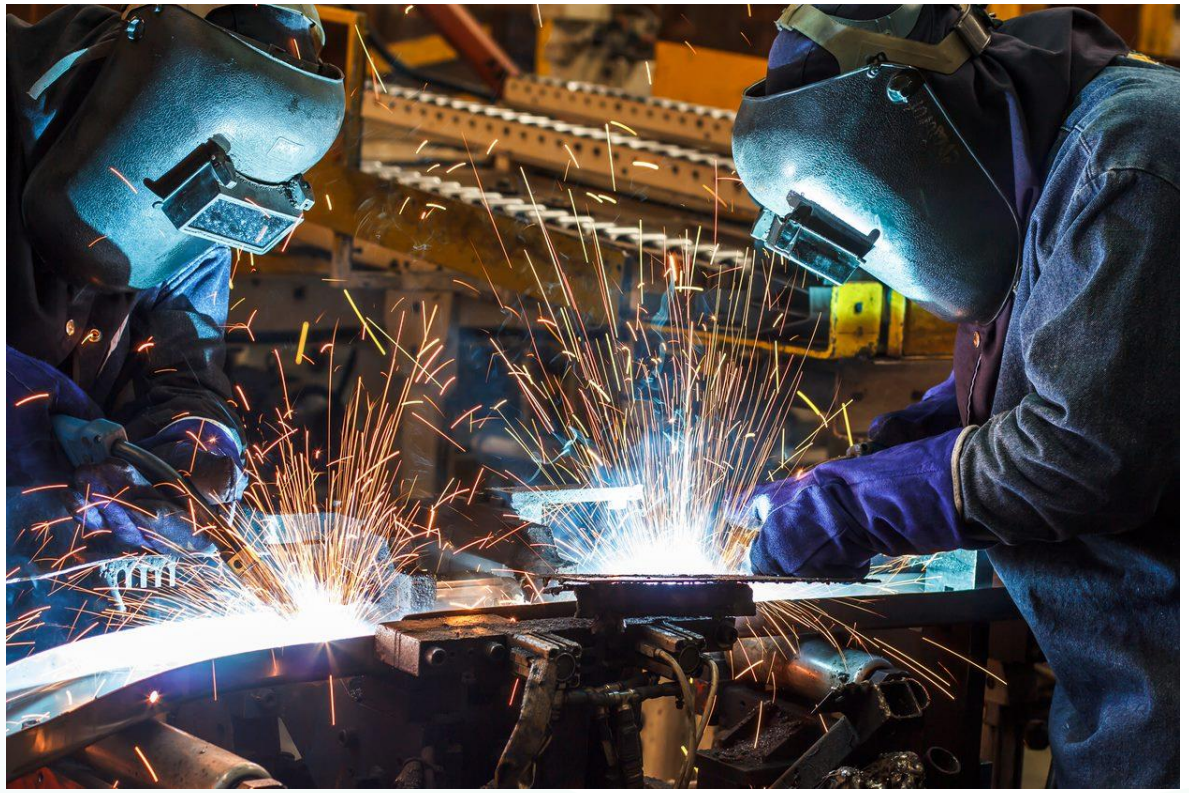


Source: CEC, California Zero-Emission Vehicle-Related Manufacturing

2022–23 Manufacturing Solicitations

Zero Emission Transportation Manufacturing (ZETM) & Zero-Emission Vehicle Battery Manufacturing Block Grant

- Scale up ZEV manufacturing
- Increase number and quality of jobs
- Positive economic impacts
- Contribute to California's goals of zero-emission transportation



2022–23 CEC Manufacturing Award Results

Project Category	Applications Received	Funding Requested (millions)	Proposed Awards	Proposed Funding (millions)*	Proposed Match (millions)
Complete ZEVs	15	$183	6	$112	$134
ZEV Batteries	7	$94	5	$63	$117
ZEV Infrastructure	2	$18	1	$15	$15
Components for ZEV & ZEV Infrastructure	2	$16	1	$8	$14
Block Grant - Battery Manufacturing	*1*	*$25*	*1*	*$25*	*TBD*
TOTAL	**27**	**$336**	**14**	**$223**	**$281**

Source: CEC staff. *Awards are subject to approval at CEC business meetings.

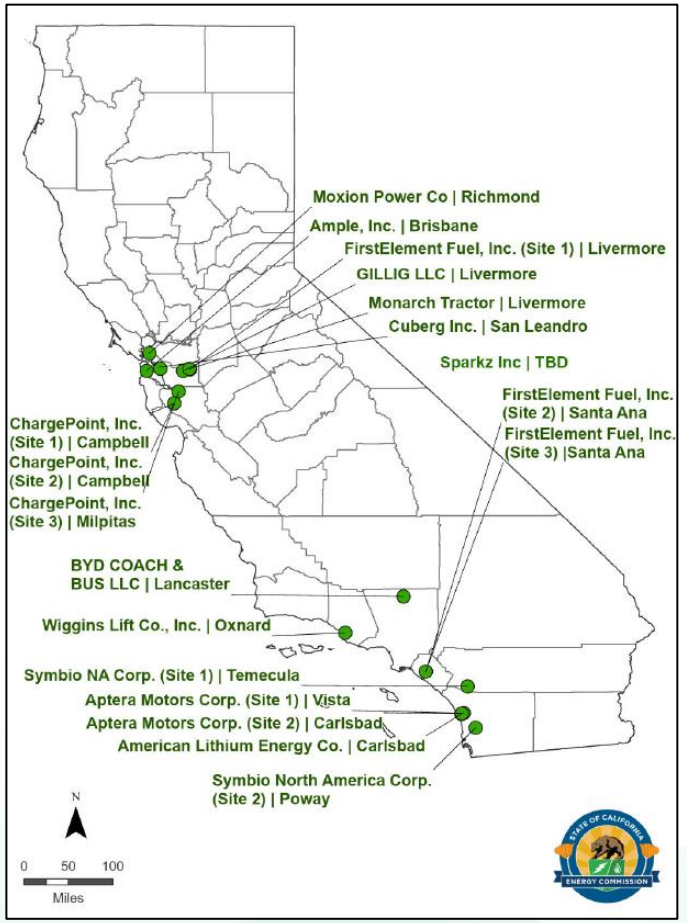
Manufactured Products Supported

Source: GILLIG, battery electric bus

Source: Cuberg, battery cells

Source: ChargePoint, EVSE

Source: Wiggins, battery electric forklift



Source: CEC staff, GFO-21-605 awardees

Questions for staff on these updates?

Investment Plan Update and Advisory Committee Discussion

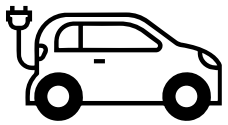
2023–2024 Investment Plan Update for the Clean Transportation Program: Revised Staff Draft

November 14, 2023

Benjamin Tuggy, Project Manager for the Clean Transportation Program Investment Plan

Fuels and Transportation Division

Investments in Fiscal Years 2023–2024 to 2026–2027

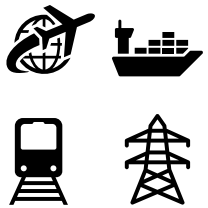


$658 Million

Light-Duty EV Charging Infrastructure

$1.14 Billion

Medium- and Heavy-Duty ZEV Infrastructure

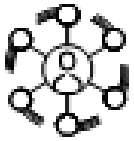


$46 Million

Emerging Opportunities

$5 Million

Low-Carbon Fuels



$5 Million

ZEV Workforce Development

+

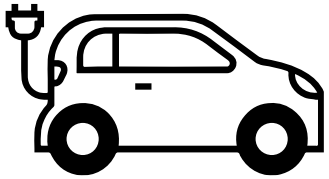
$384 Million

National Electric Vehicle Infrastructure

Total: $1.85 Billion

Not counting base Clean Transportation Program funds after 2023–2024

Light-Duty EV Charging



$658 Million

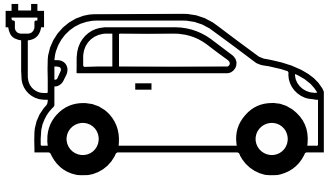
+

$384 Million

National Electric Vehicle Infrastructure

- Equitable at-home solutions for multi-family homes
- Targeted deployments in rural and priority communities
- Broad network of high-power fast chargers

Light-Duty EV Charging Changes Since April



$658 Million

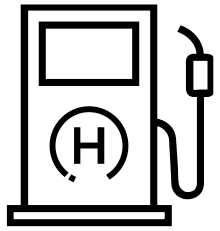
+

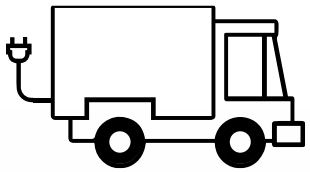
$384 Million

National Electric Vehicle Infrastructure

- Total through fiscal year 2026–2027
  - Up from $634 million
- This fiscal year
  - $42.6 million (base) and $95 million (Greenhouse Gas Reduction Fund)
  - Base funds up from $13.8 million
  - Greenhouse Gas Reduction Fund replaced general funds; down from $370 million

Medium- and Heavy-Duty ZEV Infrastructure

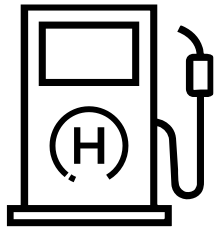


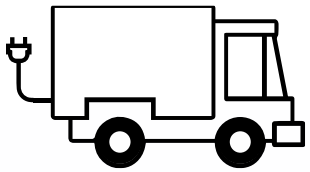


$1.14 Billion

- Both hydrogen refueling and EV charging
- Zero-emission port infrastructure
- Fuel thousands of trucks and off-road equipment

Medium- and Heavy-Duty ZEV Infrastructure Changes Since April

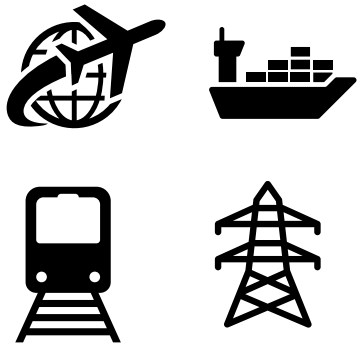




$1.14 Billion

- Total through fiscal year 2026–2027
  - Up from $954 million
- This fiscal year
  - $42.6 million (base) and $344 million (Greenhouse Gas Reduction Fund)
  - Base funds up from $13.8 million
  - Greenhouse Gas Reduction Fund replaced most general funds; down from $645 million

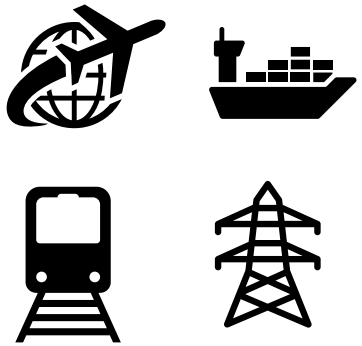
Emerging Opportunities



$46 Million

- Sectors early in transition to zero emission including aviation, marine, and rail
- Vehicle-grid integration to support grid-friendly charging

Emerging Opportunities Changes Since April



$46 Million

- Total through fiscal year 2026–2027
  - Same at $46 million
  - Greenhouse Gas Reduction Fund replaced general funds
- This fiscal year
  - None awarded in 2023 budget agreement
  - Down from $35 million

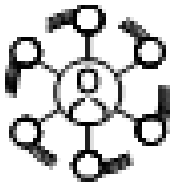
Low-Carbon Fuels

- Bio-derived fuels including from forest wastes
- Low-carbon hydrogen production
- Complements other funding and incentive programs
- Compared to April staff draft allocations:
  - Still $5 million (base) for this fiscal year

$5 Million

Workforce Training and Development

- Training and workforce development programs
- Prioritize disadvantaged and low-income communities
- Compared to April staff draft allocations:
  - Still $5 million (base) for this fiscal year



$5 Million

Funding Allocations Table

Category	Eligible Fuel Types	Funding Source	2023–2024	2024–2025	2025–2026	2026–2027
Light-Duty Charging Infrastructure*	Electric	Clean Transportation Program (Base)	$42.6	-	-	-
Light-Duty Charging Infrastructure*	Electric	Greenhouse Gas Reduction Fund (GGRF)	-	$120	$140	$80
Equitable At-Home Charging	Electric	GGRF	$95.0	$80	$60	$40
Medium- and Heavy-Duty Infrastructure	Electric, Hydrogen	Base	$42.6	-	-	-
Drayage Truck Infrastructure	Electric, Hydrogen	GGRF	$80.75	$50	$50	$49
School Bus Infrastructure	Electric	General Fund (Proposition 98)	$125.0	$125	$125	-
Clean Truck, Bus, and Off-Road Equipment Infrastructure	Electric, Hydrogen	GGRF	$137.75	$137	$89	-
Port ZEV Infrastructure	Electric, Hydrogen	GGRF	-	-	-	$130
Emerging Opportunities	Electric, Hydrogen	GGRF	-	-	$46	-
Zero- and Near-Zero-Carbon Fuel Production and Supply	Multiple	Base	$5.0	-	-	-
Workforce Training and Development	Electric, Hydrogen	Base	$5.0	-	-	-
		Total Base	**$95.2**			
		Total General Fund and GGRF	**$438.5**	**$512**	**$510**	**$299**

* Not including about $384 million in federal NEVI funds

Funding Allocations Table Caveats

Category	Eligible Fuel Types	Funding Source	2023–2024	2024–2025	2025–2026	2026–2027
Light-Duty Charging Infrastructure*	Electric	Clean Transportation Program (Base)	$42.6	-	-	-
Light-Duty Charging Infrastructure*	Electric	Greenhouse Gas Reduction Fund (GGRF)	-	$120	$140	$80
Equitable At-Home Charging	Electric	GGRF	$95.0	$80	$60	$40
Medium- and Heavy-Duty Infrastructure	Electric, Hydrogen	Base	$42.6	-	-	-
Drayage Truck Infrastructure	Electric, Hydrogen	GGRF	$80.75	$50	$50	$49
School Bus Infrastructure	Electric	General Fund (Proposition 98)	$125.0	$125	$125	-
Clean Truck, Bus, and Off-Road Equipment Infrastructure	Electric, Hydrogen	GGRF	$137.75	$137	$89	-
Port ZEV Infrastructure	Electric, Hydrogen	GGRF	-	-	-	$130
Emerging Opportunities	Electric, Hydrogen	GGRF	-	-	$46	-
Zero- and Near-Zero-Carbon Fuel Production and Supply	Multiple	Base	$5.0	-	-	-
Workforce Training and Development	Electric, Hydrogen	Base	$5.0	-	-	-
		Total Base	**$95.2**			
		Total General Fund and GGRF	**$438.5**	**$512**	**$510**	**$299**

* Not including about $384 million in federal NEVI funds

Allocations That CEC Can Change

Category	Eligible Fuel Types	Funding Source	2023–2024
Light-Duty Charging Infrastructure	Electric	Clean Transportation Program (Base)	$42.6
Medium- and Heavy-Duty Infrastructure	Electric, Hydrogen	Base	$42.6
Zero- and Near-Zero-Carbon Fuel Production and Supply	Multiple	Base	$5.0
Workforce Training and Development	Electric, Hydrogen	Base	$5.0
		Total Base	**$95.2**

Questions for Consideration: #1

- Now that overall funding allocations have changed significantly, do the proposed CTP base funding allocations strike the right balance?

Questions for Consideration: #2

- Is $5 million in CTP base funds for low-carbon fuels development appropriate for Fiscal Year 2023–2024?

Questions for Consideration: #3

- Should Fiscal Year 2023–2024 funding be allocated to light-duty hydrogen refueling infrastructure given the significant funds remaining from previous fiscal years?

Questions for Consideration: #4

- Can you recommend additional outreach methods as we solicit applications to serve on the CTP Advisory Committee?

Public Comment

Closing Links and Contact

- More information: https://www.energy.ca.gov/programs-and-topics/topics/transportation
- Submit e-comments by November 28, 2023 at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=23-ALT-01
- Contact: Benjamin.Tuggy@energy.ca.gov