

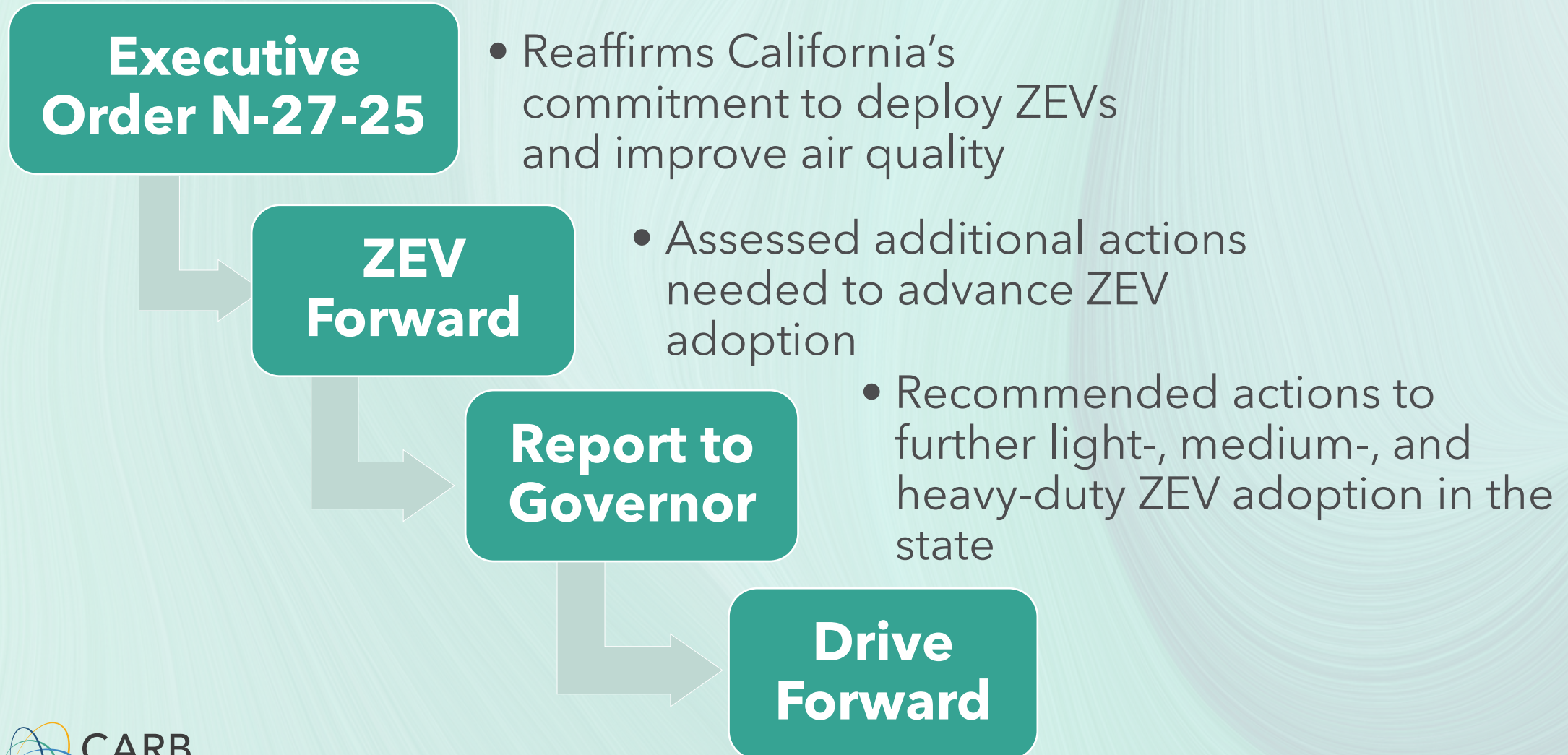


Drive Forward Truck Forum on Infrastructure

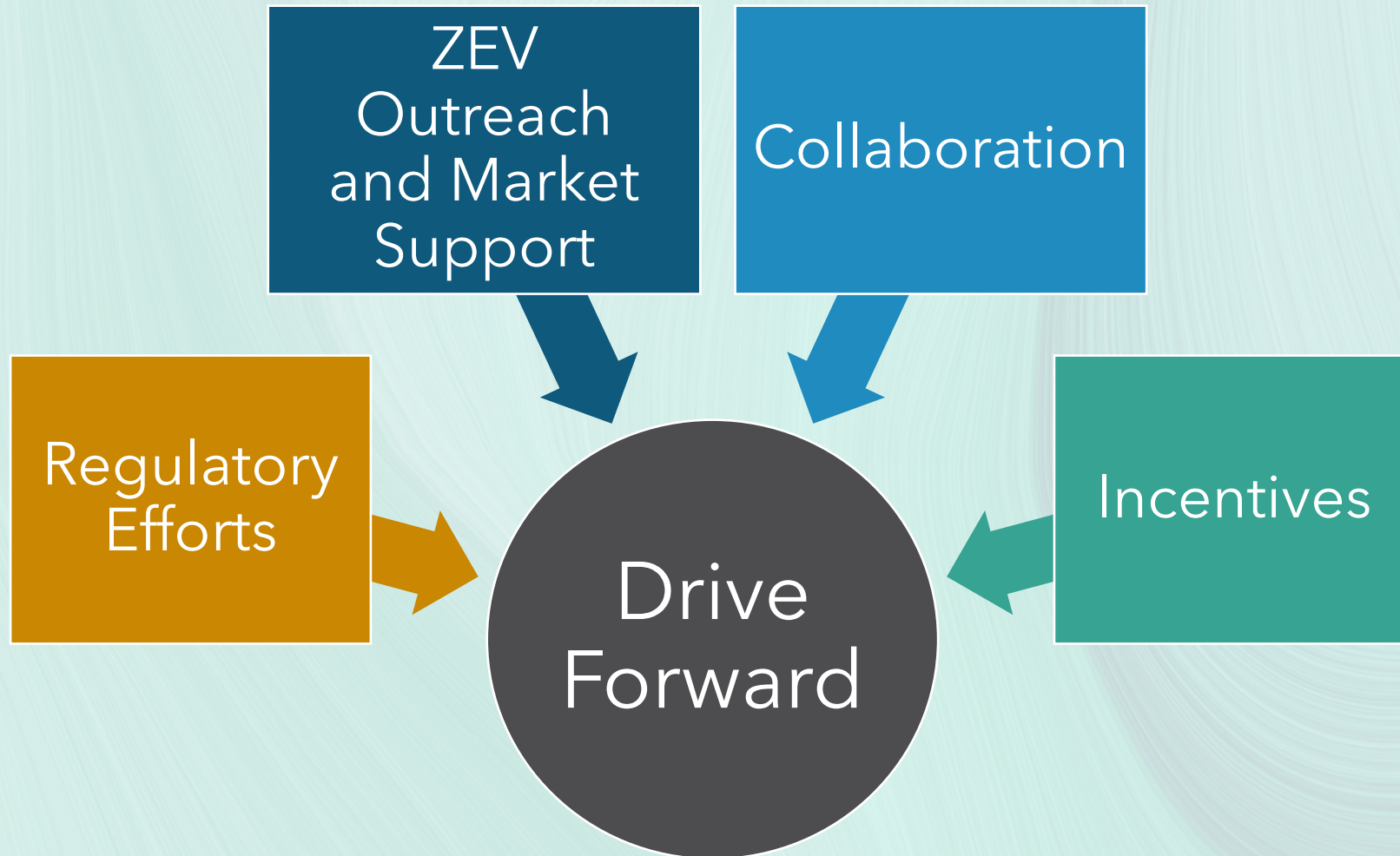
Proactive Planning for State & Local Government
and Other Fleets

December 8, 2025

California Continues Forward



Drive Forward



Drive Forward and ZE Infrastructure Websites

- Drive Forward website activities, engagement opportunities and workshops
 - <https://ww2.arb.ca.gov/drive-forward>
- ZEV Infrastructure-specific meetings, past and future
 - <https://ww2.arb.ca.gov/zero-emission-infrastructure>



Agenda

- Introduction
- Overview of State and Local Government Fleet Regulation Requirements
- Pacific Gas & Electric and Southern California Edison presentations on:
 - Annual electrical distribution planning process for grid upgrades
 - Customer information needed to gain approval for grid investments
 - Fleet details that help utilities plan for future grid investments
 - Utility-customer engagement
- San Diego Gas & Electric presentation on municipal fleet efforts
- Q&A and focused discussion
- Next steps

State and Local Government Fleet Requirements Advanced Clean Fleet Regulation

Advanced Clean Fleets Update

Amendments to the ACF regulation were recently adopted which would repeal parts of the regulation applying to federal or private fleets, including requirements for drayage trucks. The amendments are expected to be effective before January 2027.

The state and local government fleets portion of ACF would remain, subject to amendments under AB 1594, which preserve CARB's authority to provide added flexibility for most public agency utilities. Consistent with its mission to reduce air pollution and protect public health, CARB encourages all to continue reducing emissions and we look forward to partnering with you in these efforts.

State and Local Government Fleet Applicability

- “State or local government agency” means a city, county, public utility, special district, local agency or district, and any department, division, public corporation, or public agency of the State of California.
- Applies to any state or local government agency in California that owns, leases, or operates one or more vehicles with a gross vehicle weight rating (GVWR) greater than 8,500 lbs.



Excluded Vehicles

- School buses defined in (California Vehicle Code §545)
- Emergency vehicles defined in (California Vehicle Code §165)
- Vehicles awaiting sale
- Military tactical vehicles
- Historical vehicles
- Dedicated snow removal vehicles
- Certain two-engine vehicles
- Heavy cranes
- Transit vehicles subject to Innovative Clean Transit regulation
- Vehicles subject to Zero-Emission Airport Shuttle regulation



ZEV Purchase Schedule

Current Requirements

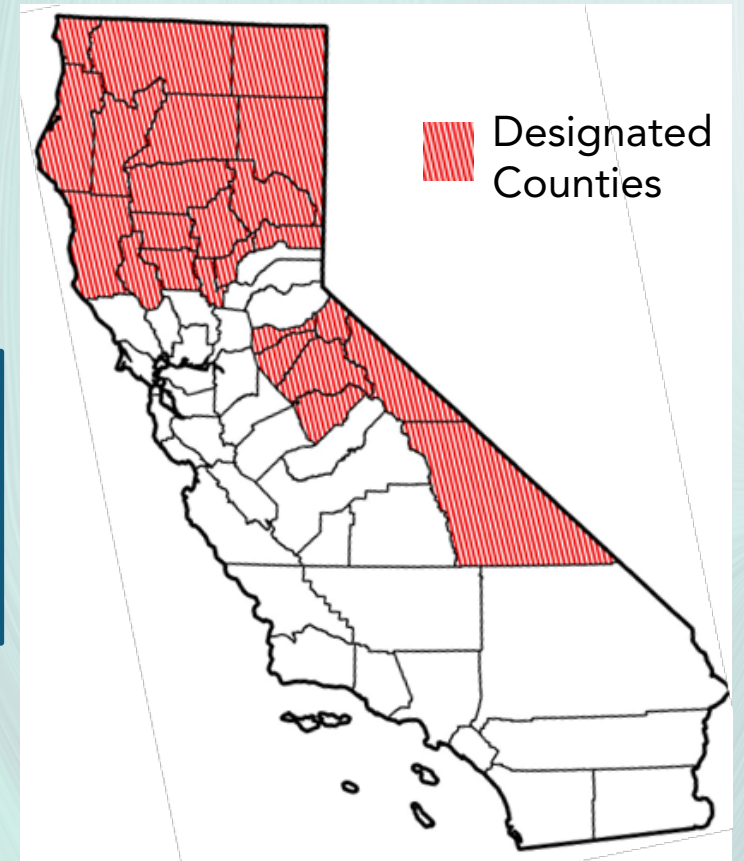
2024-2026

50 percent of purchases must
be ZEV or NZEV

January 1, 2027+

All purchases must
be ZEV or NZEV

- Agencies in designated counties or divisions with 10 or fewer vehicles are exempt from the ZEV purchase requirements until 2027, still must report to TRUCRS
- 2035 and earlier MY NZEVs count as a ZEV



ACF Amendments

ZEV Purchase Schedule

Expected to be Effective Before 2027

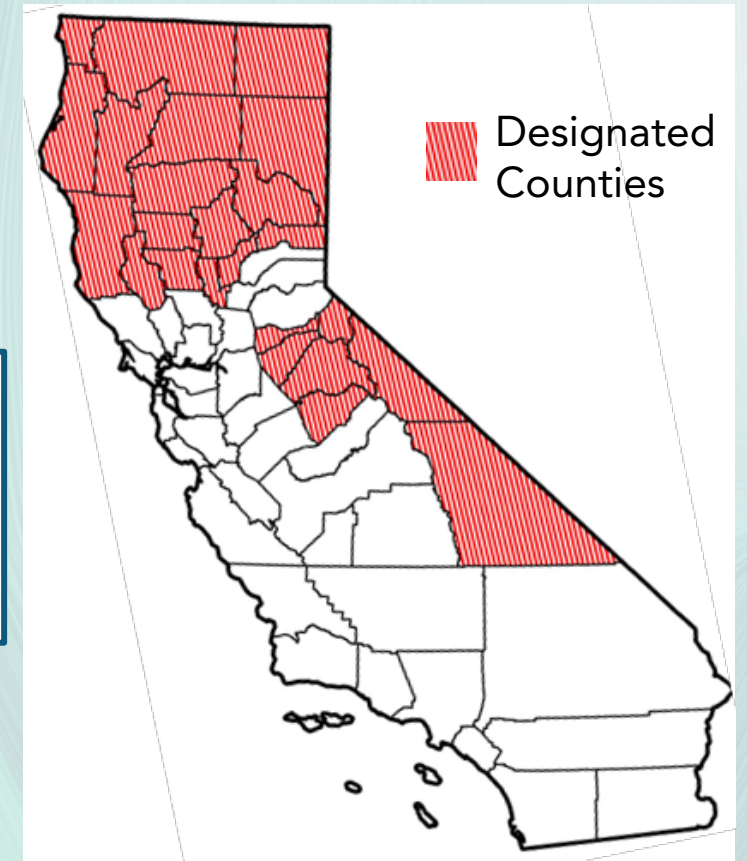
2024-2029

50 percent of purchases must
be ZEV or NZEV

January 1, 2030+

All purchases must
be ZEV or NZEV

- Agencies in designated counties or divisions with 10 or fewer vehicles are exempt from the ZEV purchase requirements until 2030, still must report to TRUCRS
- 2035 and earlier MY NZEVs count as a ZEV



Reporting Date

- State and Local Government Agency Fleets
 - **T**ruck **R**egulation **U**pload, **C**ompliance, and **R**eporting **S**ystem (**TRUCRS**)
 - Initial Reporting Deadline April 1, 2024
 - Annual deadline April 1, until 2045
- Fleet changes need to be reported within 30 days of occurrence
 - Any vehicles added
 - Any vehicles permanently removed
 - Backup vehicles that exceed the allowable mileage
 - ZEV conversions




ZEV Purchase Schedule - Considerations

- Existing compliant internal combustion vehicles can be operated indefinitely
 - No useful life retirement in this option
- Early/excess action credit
 - ZEVs purchased early or in excess of purchase requirements count one-for-one towards future combustion-powered vehicle purchase
- Flexibility provision access
- Compliance is assessed at the end of year for all purchases made during that calendar year
- Non-transit vehicles owned by Transit Agencies subject to the ICT regulation are exempt through 1/1/2030




ZEV Milestones Option

- Available to State and Local Government Agency Fleets
- Provides flexibility to comply regardless of vehicle age or mileage
- Phased-in based on ZEV suitability by vehicle type
 - Must meet ZEV milestones as a percent of California fleet
- Flexibility to add new or used ICE vehicles beyond 2027
- Annual Reporting Deadline is February 1
- Can opt-in permanently in TRUCRS until 1/1/2030
- Must waive right to statutory useful life for vehicles

ZEV Milestones Option Table

Zero-Emission Fleet Percentage	10%	25%	50%	75%	100%
Group 1: Box trucks, vans, 2-axle buses, yard trucks, light-duty package delivery vehicles 	2025	2028	2031	2033	2035
Group 2: Work trucks, pickups, day cab tractors, 3-axle buses 	2027	2030	2033	2036	2039
Group 3: Sleeper cab tractors and Class 8 specialty vehicles 	2030	2033	2036	2039	2042

Example for a 100 Truck Fleet

Vehicle Type	# of Vehicles	ZEVs in 2025	ZEVs in 2029	ZEVs in 2033	ZEVs in 2037	ZEVs in 2041	ZEVs in 2045
Box trucks, vans, two-axle buses, yard tractors, light-duty delivery vehicles 	60	6 (10%)	15 (25%)	45 (75%)	60 (100%)	60 (100%)	60 (100%)
Work trucks, day cab tractors, pickup trucks, three-axle buses 	20	0	2 (10%)	10 (50%)	15 (75%)	20 (100%)	20 (100%)
Sleeper cab tractors and Class 8 specialty vehicles 	20	0	0	5 (25%)	10 (50%)	15 (75%)	20 (100%)
ZEV Milestones	100	6	17	60	85	95	100

Exemptions and Extensions

Provision	Summary
Vehicle Delivery Delay Extension*	Allows a fleet to remain compliant if a ZEV order is delayed.
ZEV Infrastructure Delay Extension	Extends compliance for up to 5 years for delays during planning and construction.
ZEV Purchase Exemption	Can buy ICE vehicle if ZEV is not available in same configuration and weight class.
Daily Usage Exemption	Can buy ICE vehicle if available BEV does not meet fleet's mileage or power needs, and no NZEV or FCEV are available in the same configuration and weight class.
Mutual Aid Assistance	Reserves up to 25 percent of ICE vehicles in a fleet for use in mutual aid events.
Waste and Wastewater Fleets Ext.	Gives more time for existing CNG trucks in waste diversion and biomethane generation. Must permanently opt into ZEV Milestones to qualify.
Non-Repairable Vehicle	Flexibility to purchase used replacement ICE vehicle in case of an accident.
Backup Vehicle Exemption	Vehicle operated less than 1000 miles per year, excluding emergency operation mileage.
Intermittent Snow Removal Vehicle	May purchase ICE vehicles to operate as intermittent snowplow until 2030.
Transit Agency Exemption	Excludes transit agencies and their maintenance vehicles until 1/1/2030.

Note: * Not relevant to ZEV Purchase Schedule

Under ZEV Purchase Schedule MY of ICE vehicle being replaced must be at least 13 years old to qualify₁₇

Amendments will expand compliance flexibilities- Expected to be effective before 2027

Amendments to Advanced Clean Fleets

- Board Hearing Date: 9/25/2025
- Repeal parts of the ACF regulation applying to federal or private fleets, including requirements for drayage trucks
- Extend the 50% ZEV purchase requirement by three years and delay the 100% ZEV purchase requirement to 2030
 - Extending the exemption for small fleets and designated low population counties until 2030
- Expand compliance flexibilities
- Expected to be effective before January 2027
- Details regarding the amendments can be seen online:
- <https://ww2.arb.ca.gov/rulemaking/2025/acfab1594>

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Investor-Owned Utility (IOU) Presentations

Customer Roles in Proactive Grid Planning and Utility Bridging Solutions

CARB Drive Forward Infrastructure Forum

December 8, 2025

Kimberly Douglas – SCE

Thomas Boylan – PG&E



Proactive Grid Planning – When? Where? How much?

The pending loads framework creates an actionable way for California IOUs to use medium- to long-term customer and community plans to make proactive distribution grid capacity investments ahead of formal energization requests.

Background

- Distribution planning has historically been based on state-wide energy forecasts (IEPR) and known loads (service applications).
- The High DER regulatory proceeding aims to reform the utility distribution planning process by creating approval for IOUs to incorporate **Pending Loads** – customer and community charging plans – into their forecasts, even if the sites aren't ready for a formal energization request.
- Individual pending loads are categorized based on confidence criteria depending on data availability and completeness of the information provided to IOUs.
- Grid needs forecasted from IEPR, known loads, and pending loads will be used to justify investments in distribution capacity and plan distribution capacity upgrades.
- The effectiveness of the pending loads framework will be largely dependent on data quality and availability.



Types of Data Needed by IOUs

The type of data provided and the completeness of it will help the utilities determine how to incorporate in the forecast, based on the likelihood of a pending load materializing into a service request.

- Location
- Electrical demand
- Interconnection year
- Site design status – Specific or Preliminary
- Permit status – Approved, Submitted, or Identified
- Funding status – Secured or Identified

*Note this is still preliminary and may change pending final CPUC decision.



PG&E Resources Available

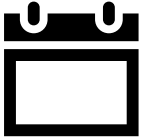
PG&E has internal and external resources available for providing your EV charging plans along with resources to help identify solutions that meet your fleet operational characteristics.

- PG&E [EV Advisory Services](#)
 - Strategic guidance and one-on-one support for fleet operators at any stage of electrification
- PG&E [Grid Resource Integration Portal](#)
 - Hosting capacity maps for PG&E service territory
- EPRI's [GridFAST Portal](#)
 - Centralized portal for submitting electrification plans

Thomas Boylan
Principal Strategic Analyst, Clean Energy Transportation
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Customer Early Insights

WHEN



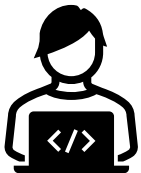
- SCE is seeking early insights in advance of a formal energization request, customers and fleets should provide SCE with details on fleet size and vehicle types, electrification timelines, charging needs (e.g., locations, power levels, and expected usage patterns), and additional site information.

WHAT



- While the CPUC draft resolution primarily requires utilities to collect data for proactive grid planning—such as projected EV adoption, charging load forecasts, and site readiness—SCE also wants customers to be aware of additional details that improve planning accuracy. These includes location, operational constraints like duty cycles and down-time windows

WHERE



- Customers can provide the required information by working directly with various SCE teams, including their Customer Account Manager, Ready Grid, New Business Planning, and Distribution Planning. These teams help capture load size, energization timelines, charging needs, and site details to ensure accurate grid planning and timely infrastructure deployment.

Distribution Resource Planning External Portal (DRPEP)

PURPOSE



- **DRPEP** is a public-facing tool that provides visibility into SCE's distribution planning data.
- Help customers **pre-screen sites** before requesting studies, reducing unnecessary work and cycle time across SCE teams and applicants

KEY FEATURES



1. Interactive Grid Visualization

- View distribution/transmission circuits, substations, and service territory boundaries; click circuits for capacity/generation data and download datasets.

2. Capacity and Interconnection Insights

- Access Integration Capacity Analysis (ICA) for load/generation, see current/queued/total distributed generation interconnections, and review reserve load capacity

3. Advanced Filtering and Exporting

- Filter data by map or alphabetically; export up to 1,000 records to CSV; tabs update dynamically based on visible map layers

BENEFITS



- Faster, more informed site selection: Early visibility to capacity and constraints lets agencies, developers, and fleets prioritize viable locations and avoid low-probability sites before formal application
- Reduced unnecessary studies: By using DRPEP first, many questions on hosting capacity and reserve load can be answered without an immediate Engineering Analysis Report (EAR), saving weeks for customers and internal teams.



Call To Action: Partnering for Grid Readiness

SHARE



- Provide projected EV charging and DER-related load increases as soon as possible to help us plan proactively.

ENGAGE



- Work through your SCE customer account manager as the primary channel to share load growth insights and project timelines, while leveraging support from key SCE teams such as Ready Grid, New Business Planning, and Distribution Planning.

COLLABORATE



- Update us regularly as plans evolve—early and frequent insights reduce delays and ensure reliable service for your customers.

Questions



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Southern California Edison

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Email: Kimberly.douglas@sce.com



Accelerate to Zero Emissions (A2Z) Overview

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Danielle Weizman, Business Development Manager

A2Z Overview

Core Project Team

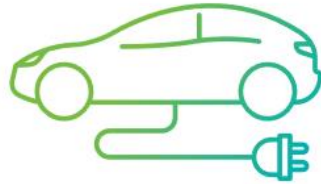


Steering Committee



A2Z Overview

Objectives



ACCELERATE TO ZERO EMISSIONS

A Regional Collaboration to Curb Air Pollution and Climate Change through Transportation Electrification

1

Develop a Regional ZEV Gap Analysis

2

Develop a Regional ZEV Strategy

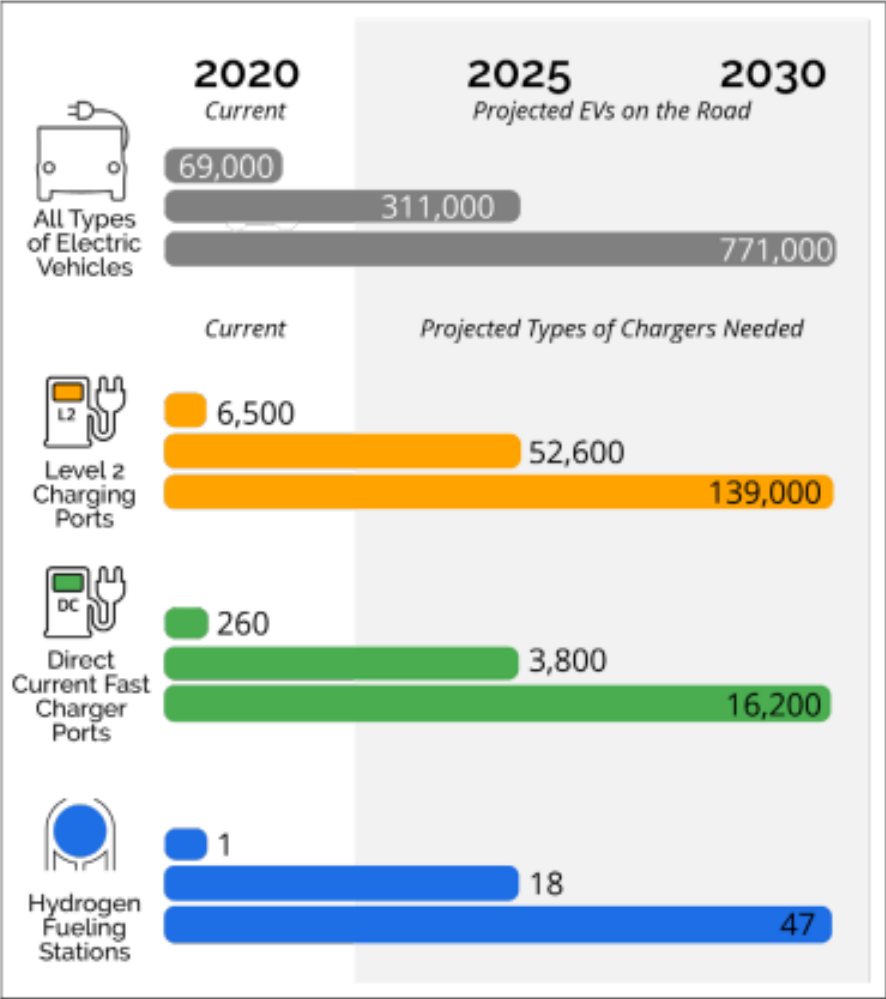
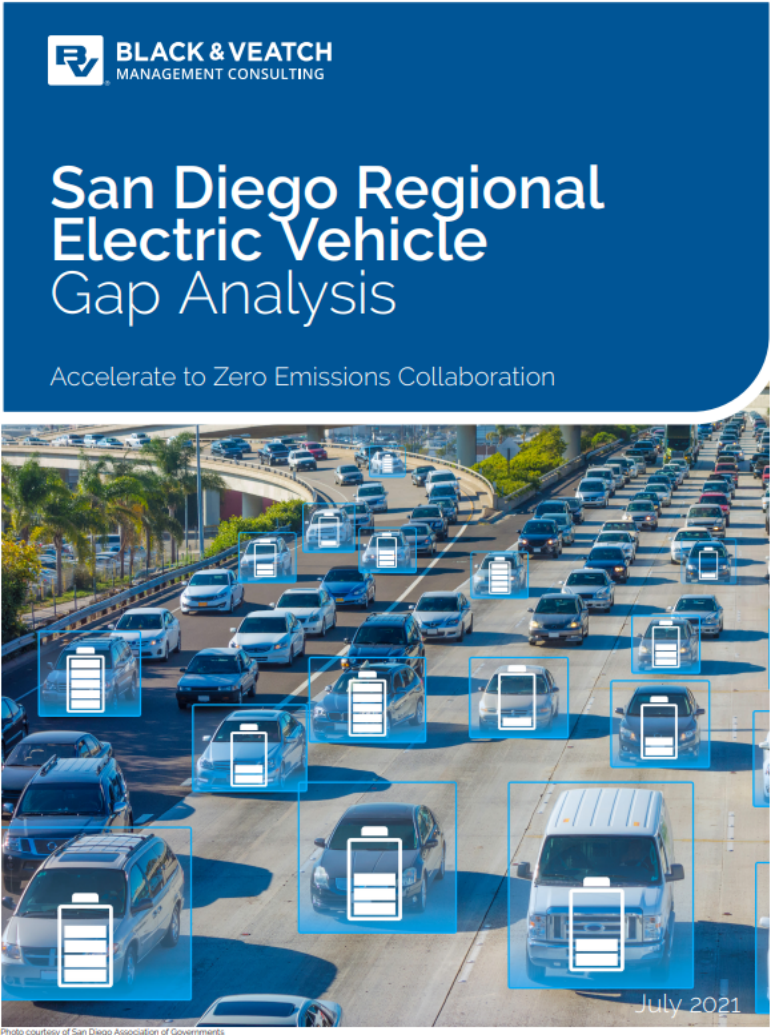
3

Increase resources for the region to accelerate ZEV transition

4

Serve as a forum to inform regional ZEV efforts

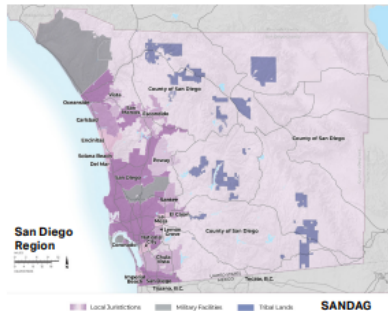
A2Z Regional Gap Analysis



A2Z Regional ZEV Strategy



San Diego Regional Zero Emission Vehicle (ZEV) Strategy



ACCELERATE TO ZERO EMISSIONS
A Regional Collaboration to Curb Air Pollution and
Climate Change through Transportation Electrification
October 2023

A2ZSanDiego.com

AECOM

Strategies

- 1 Increase Percentage of Zero Emission Vehicle Miles Traveled
- 2 Achieve Equitable/Accessible Siting of ZEV Infrastructure in all San Diego Communities
- 3 Increase ZEV Awareness and Adoption
- 4 Support Workforce Development
- 5 Accelerate Deployment of Publicly Accessible ZEV Infrastructure
- 6 Lower policy and financial barriers to ZEV adoption
- 7 Deploy ZEV Infrastructure for Multi-Unit Dwellings and Higher Density Residential and/or Commercial Areas
- 8 Ensure sufficient local grid capacity for projected ZEV demand
- 9 Encourage and support fleet transition to zero emissions
- 10 Support innovative ZEV pilot projects

Objectives Status



- | | | |
|---|--|----------|
| 1 | Develop a Regional ZEV Gap Analysis | Complete |
| 2 | Develop a Regional ZEV Strategy | Complete |
| 3 | Increase resources for the region to accelerate ZEV transition | Ongoing |
| 4 | Serve as a forum to inform regional ZEV efforts | Ongoing |

Q&A and Discussion

Recap and Next Meeting

- Recap of today's discussion
- 2026 Drive Forward Truck Forum Infrastructure Meetings – 1:00 – 3:00 PM

March 9	May 18	September 14	December 7
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- March 9 meeting: Fuel cell refuse trucks and renewable hydrogen
- Panelist updates
 - Add SLG participants
 - Remove no-shows
- Co-chairs seeking input on topics for May, September and December meetings
 - Leslie Goodbody: leslie.goodbody@arb.ca.gov
 - Lisa McGhee: lmcghee@ttruck.com
 - Kate Reid: Kathryn.Reid@energy.ca.gov
- Clean Fleet Connect workshop tomorrow – Dec.9, 1:00 PM [Clean Fleet Connect | California Air Resources Board](#)