

California Department of Transportation (Caltrans)

ZEV Role: Caltrans manages more than 15,000 centerline miles of California's state highway system, operates one of the largest public vehicle fleets in the country, manages major state and federal funding programs, owns rolling stock used in passenger rail services, supports transit operations, and works with local agencies to plan and construct transportation projects. Caltrans is incorporating zero-emission vehicles and infrastructure into all these responsibilities.

Equity Focus: Reduce the negative externalities of the state's transportation system on the most impacted communities. Ensure that access to zero-emission vehicles (ZEV), deployment of ZEVs, and the development of ZEV infrastructure is carried out in an equitable manner resulting in improvements in air quality and increasingly sustainable land use patterns.

2024 Highlights

- Caltrans was awarded \$102 million as part of the Charging Fueling and Infrastructure (CFI) in partnership with the California Energy Commission (CEC), Oregon Department of Transportation (ODOT), and Washington State Department of Transportation (WSDOT) to support zero-emission truck travel along the West Coast. Caltrans and the CEC finalized an interagency agreement to administer California's portion of this funding.
- Caltrans was awarded \$2.1 million to procure 11 Class 6 electric cargo trucks as part of the US EPA's Clean Heavy-Duty Vehicle Program.
- Caltrans nominated 11 medium- and heavy-duty ZEV infrastructure projects for Cycle 4 of the Trade Corridor Enhancement Program (TCEP). Six of the 11 projects nominated for TCEP Cycle 4 were awarded funding, representing 13 sites that will support 356 chargers for electric trucks across the state.
- Eleven awards were made by the CEC in California's first round of funding under the National Electric Vehicle Infrastructure (NEVI) Formula Program. The CEC is currently reviewing applications under the state's second round of NEVI funding.
- Caltrans was awarded \$63.7 million by the Federal Highway Administration (FHWA) to repair and replace broken EV chargers under the Electric Vehicle Charger Reliability and Accessibility Accelerator (EVC RAA) Program. Caltrans and the CEC finalized an interagency agreement to administer this funding. The

CEC released the state's first solicitation for EVC RAA projects in October 2024 and are currently finalizing proposed awards.

- 22 highway corridors in the state progressed from "EV Pending" to "EV Ready" in FHWA's 8th round of Alternative Fuel Corridor (AFC) nominations in 2024.

ZEV Market Development Objectives

1. Caltrans Vehicle and Equipment Fleet

Key Collaborators:

Department of General Services (DGS), California State Transportation Agency (CalSTA), California Air Resources Board (CARB), CEC, academic research institutions

Key Results & Actions:

A. Procure and deploy ZEVs for Caltrans fleet

2024 Targeted Key Results:

- Purchase and deploy ZEVs for Caltrans fleet to meet and exceed ZEV goals according to the Advanced Clean Fleets Rule and in line with Senate Bill 1203.

Outcome:

- 418 ZEVs were added to the Caltrans fleet in 2024, including one Class 8 tractor and three battery electric sweepers. This is a continuing effort.

2024 Targeted Key Results:

- Apply for state and federal incentives to bolster ZEV deployments.

Outcome:

- In 2024, Caltrans applied for and was [awarded](#) \$2.1 million to purchase 11 Class 6 electric cargo trucks as part of the US EPA's Clean Heavy-Duty Vehicle Program.

2024 Targeted Key Results:

- Continue multi-year planning efforts to support ZEV fleet acquisition.

Outcome:

- DGS approved Caltrans' addendums to the Multi-Year Fleet Acquisition Plan to replace additional vehicles with ZEVs.

2025 Targeted Key Results:

- Purchase and deploy ZEVs for Caltrans fleet to meet and exceed ZEV goals according to the Advanced Clean Fleets Rule, in line with Senate Bill 1203.
- Continue multi-year planning efforts to support ZEV fleet acquisition.

B. Build and maintain chargers for Caltrans fleet

2024 Targeted Key Results:

- Plan for and install chargers at Caltrans' facilities to meet fleet demand.

Outcome:

- As of September 2024, more than 1,100 Level 2 charging ports have been installed at Caltrans facilities across the state, including 73 Level 2 charging ports in 2024.

2024 Targeted Key Results:

- Identify funding and resources to bolster deployment of ZEV infrastructure and meet maintenance needs including state, federal, and utility incentives.

Outcome:

- Caltrans is applying pursuing support from utility incentive programs offered by PG&E and SCE.
- 201 of Caltrans' chargers at 46 facilities have been registered for Low Carbon Fuel Standard (LCFS) credit generation through DGS.

2024 Targeted Key Results:

- Establish policy, procedures, and metrics for the reliability of charging infrastructure used by the Caltrans fleet.

Outcome:

- This process is expected to begin in 2025 and continue into 2026.

2024 Targeted Key Results:

- Update parking and charging policy for Caltrans fleet and employee vehicles.

Outcome:

- Internal coordination underway amongst Caltrans' Districts and Divisions to update the Department's policy and guidance on use and maintenance of chargers for employees, fleet vehicles, and the public.

2025 Targeted Key Results:

- Plan for and install chargers at Caltrans' facilities to meet fleet demand.
- Identify funding and resources to bolster deployment of ZEV infrastructure and meet maintenance needs.
- Establish policy, procedures, and metrics for the reliability of charging infrastructure used by the Caltrans fleet.

- Update charging policy and maintenance guidance for Caltrans fleet chargers, employee chargers, and public chargers.

2. Personal Vehicles

Key Collaborators:

CEC, FHWA, GO-Biz, tribal governments, local and regional governments, other state Departments of Transportation

Key Results & Actions:

A. Secure and administer funding to support publicly accessible infrastructure for ZEVs

2024 Targeted Key Results:

- Collaborate with the CEC to award and oversee the first round of NEVI funding and to release the second round of NEVI funding.

Outcome:

- Eleven awards were made by the CEC in California's first round of funding under the NEVI Formula Program. These awards represent \$36.6 million in NEVI funding and will be supported by \$49.4 million in private sector matching funds. The eleven awards will support 515 charging ports at 69 sites across California.
- Caltrans and the CEC released the [second solicitation](#) for NEVI in December 2024 with submissions due March 2025. This solicitation offered \$107 million in funding, making this the largest single NEVI solicitation in the country to-date. Applications are currently under review by the CEC.
- California's [2024 NEVI Deployment Plan](#) was approved by FHWA on November 15, 2024.

2024 Targeted Key Results:

- Collaborate with the CEC to administer and award funding to repair and replace broken or non-operational EV chargers under the EVC RAA Program.

Outcome:

- On January 18, 2024, Caltrans was [awarded](#) \$63.7 million from FHWA to repair and replace EV chargers under the EVC RAA Program.
- The CEC released the state's first EVC RAA [solicitation](#) in October 2024 and are currently finalizing proposed awards.

2024 Targeted Key Results:

- Operate and maintain Caltrans' publicly accessible chargers.

Outcome:

- Guidance is being developed to streamline coordination amongst Caltrans Divisions and Districts to maintain publicly accessible chargers at Caltrans facilities. Caltrans District 6 created a dedicated position to oversee the maintenance of fleet, employee, and public chargers, that can serve as a model for other Districts.

2024 Targeted Key Results:

- Identify opportunities and remove barriers to streamline and develop ZEV infrastructure on Caltrans Right of Way (ROW). Develop guidelines and specifications for developing ZEV infrastructure on Caltrans ROW.

Outcome:

- Caltrans continues to explore opportunities to use the Department's ROW to support zero-emission infrastructure investments. Efforts related to airspace leases have been impacted by the I-10 fire in 2023 and subsequent changes to Caltrans' Airspace Lease program. Process underway to update Caltrans' ROW Manual to allow for airspace leases longer than 5 years for projects that include ZEV infrastructure.

2025 Targeted Key Results:

- Collaborate with the CEC to oversee NEVI funding, including projects awarded under the state's first solicitation, review of applications submitted under the second solicitation, and preparation of the state's third solicitation. Respond to changes in the NEVI program as a result of the new federal administration.
- Collaborate with the CEC to administer and award funding to repair and replace broken or non-operational EV chargers under the EVC RAA Program.
- Operate and maintain Caltrans' publicly accessible chargers. Finalize guidance to streamline coordination amongst Caltrans Divisions and Districts to maintain publicly accessible chargers at Caltrans facilities.
- Develop guidelines and specifications for developing ZEV infrastructure on Caltrans ROW.

3. Intercity Passenger Rail

Key Collaborators:

Passenger rail agencies, CalSTA, CARB, GO-Biz, Federal Rail Administration (FRA), vehicle manufacturers, host railroads

Key Results & Actions:

- A. Purchase zero-emission multiple unit vehicles and continue contract execution to ensure initial service in 2029.

2024 Targeted Key Results:

- Purchase ten zero-emission multiple unit vehicles.

Outcome:

- In September 2024, Caltrans completed preliminary design reviews of the zero-emission multiple unit vehicles ordered in October 2023 and February 2024.

- B. Identify opportunities to partner with other agencies to further ZE rail adoption

2024 Targeted Key Results:

- Provide technical assistance to rail agencies as they transition to zero-emission.

Outcome:

- Hired a consultant to provide technical assistance to transit agencies as needed.

2024 Targeted Key Results:

- Continue to lead the Zero-Emission Working Group in the Rail Fleet Consortium.

Outcome:

- No meetings were held in 2024. Meetings will resume in 2025.

2025 Targeted Key Results:

- Continue to provide technical assistance to rail agencies as they transition to zero-emission.
- Continue to lead the Zero-Emission Working Group in the Rail Fleet Consortium.

C. Develop infrastructure to support ZE rail

2024 Targeted Key Results:

- Coordinate with partners to plan and develop hydrogen fueling infrastructure for Caltrans' intercity passenger rail fleet.

Outcome:

- Caltrans is working on design specifications for hydrogen fueling infrastructure for the ten fuel cell trains ordered by the Department.

2024 Targeted Key Results:

- Administer Transit and Intercity Rail Capital Program (TIRCP) funds to passenger rail projects that improve rail facilities, connectivity, and safety, reduce GHGs, and increase ridership.

Outcome:

- In October 2024, CalSTA announced 27 [awards](#) totaling \$1.3 billion under Cycle 7 of TIRCP.

2025 Targeted Key Results:

- Coordinate with partners to plan and develop hydrogen fueling infrastructure for Caltrans' intercity passenger rail fleet.
- Administer TRICP funds to passenger rail projects that improve rail facilities, connectivity, and safety, reduce GHGs, and increase ridership.

4. Commercial Vehicles

Key Collaborators:

California Transportation Commission (CTC), CalSTA, CEC, CARB, FHWA, local and regional governments, ports, other state Departments of Transportation

Key Results & Actions:

A. Plan for Commercial Vehicle Electrification

2024 Targeted Key Results:

- Review applications for the Sustainable Transportation Planning Grant Program and support planning projects that develop zero-emission charging and fueling infrastructure.

Outcome:

- Reviewed and commented on freight and ZEV related Sustainable Transportation Planning Grants for the 2024 cycle. Announcement of final awards is forthcoming.

2024 Targeted Key Results:

- Begin work on the California Freight Mobility Plan 2027 update.

Outcome:

- Effort beginning in 2025.

2024 Targeted Key Results:

- Update the Caltrans ROW manual to address ZEV infrastructure within the Caltrans airspace and draft a flowchart to explain the airspace use agreement process.

Outcome:

- Caltrans continues to explore opportunities to use the Department's ROW to support zero-emission infrastructure investments. Efforts related to airspace leases have been impacted by the I-10 fire in 2023 and subsequent changes to Caltrans' Airspace Lease program. Process underway to update Caltrans' ROW Manual to allow for airspace leases longer than 5 years for projects that include ZEV infrastructure.

2024 Targeted Key Results:

- Adopt the Geotab data analytics platform for use within analysis, plans, and studies relating to corridor electrification and charging infrastructure placement.

Outcome:

- Caltrans coordinated with several state agencies to procure Geotab database for truck related planning efforts.

2024 Targeted Key Results:

- Guide Regional Transportation Plans (RTP) and Sustainable Community Strategies to incorporate strategies that enable the transition to medium- and heavy-duty ZEVs.

Outcome:

- Engagement has begun with Regional Transportation Planning Agencies to update RTPs to include zero-emission truck infrastructure projects. Incorporation of these projects into RTPs is necessary for projects awarded under TCEP.

2025 Targeted Key Results:

- Begin work on the California Freight Mobility Plan 2027 update, including zero-emission truck components.
- Guide Regional Transportation Plans and Sustainable Community Strategies to incorporate strategies that enable the transition to medium- and heavy-duty ZEVs.

B. Coordinate and convene interagency freight meetings

2024 Targeted Key Results:

- Convene the Interagency Freight Program monthly meetings to coordinate sustainable freight activities across state agencies, including those related to zero-emission vehicles, charging and hydrogen fueling infrastructure.

Outcome:

- Caltrans convened and coordinated 12 Interagency Freight Program meetings in 2024 with presentations from many state agencies and freight experts.

2025 Targeted Key Results:

- Continue convening the Interagency Freight Program monthly meetings.

C. Support and lead ZEV freight project proposals

2024 Targeted Key Results:

- Scope zero-emission freight project proposals and secure funding from state and federal programs.

Outcome:

- Under TCEP, Caltrans developed a [call](#) for project concepts from the private sector for zero-emission truck infrastructure resulting in 31 projects requesting \$689 million in funding. Caltrans reviewed the concepts and nominated 11 applications, totaling \$127 million in infrastructure investments, to CTC's TCEP Cycle 4 in November 2024.

2024 Targeted Key Results:

- Provide technical assistance and administer funding for zero-emission freight projects from state and federal programs.

Outcome:

- In August 2024, Caltrans, in partnership with the CEC, ODOT, and WSDOT, was [awarded](#) \$102 million under the federal CFI Discretionary Grant Program to support truck charging and hydrogen fueling in CA, OR, and WA. This award represents the largest single award under the CFI program and will support 20 charging stations and three hydrogen fueling station for trucks in the three states.
- Caltrans continues to administer seven projects that support zero-emission freight under CalSTA's Port and Freight Infrastructure Program.

2024 Targeted Key Results:

- Publish the Caltrans System Investment Strategy (CSIS) including project scoring metrics associated with ZEV infrastructure.

Outcome:

- Caltrans [published](#) the CSIS document in July 2024.

2025 Targeted Key Results:

- Scope zero-emission freight project proposals and secure funding from state and federal programs.
- Provide technical assistance and administer funding for zero-emission freight projects from state and federal programs.

5. Transit Buses and Shared Mobility**Key Collaborators:**

Transit agencies, CARB, CalSTA, GO-Biz, Federal Transit Administration (FTA), vehicle manufacturers

Key Results & Actions**A. Identify opportunities to deploy ZEVs and infrastructure for transit operations****2024 Targeted Key Results:**

- Provide technical assistance to transit agencies to enable the adoption of zero-emission transit buses and the buildout of ZEV infrastructure in line with the Innovative Clean Transit (ICT) standard.

Outcome:

- Technical assistance was provided to 15 transit agencies for federal Zero-Emission Transition Plans.
- Caltrans is a participant in the ICT Zero Emission Bus Task Force which includes state and transit agencies working together on solutions for zero emission bus (ZEB) adoption aligned with the ICT.
- Caltrans District transit plans are being drafted and will be finalized in 2026. Caltrans release of the State Transit Plan is scheduled for 2027.

2024 Targeted Key Results:

- Administer funding programs for zero-emission vehicle procurement and infrastructure buildout.

Outcome:

- Caltrans is administering 152 projects that were funded in 2024, supporting the procurement of zero-emission vehicles and the development of ZEB infrastructure. These projects are funded through

the Low Carbon Transit Operations Program (LCTOP), TIRCP, State of Good Repair (SGR), and FTA programs.

2024 Targeted Key Results:

- Coordinate ZEV efforts across transit agency partners.

Outcome:

- Market analysis was conducted to gather industry perspectives to accelerate the ZE transition for transit. [Report](#) completed and published in March 2024.

2025 Targeted Key Results:

- Support transit agencies adoption of zero-emission transit buses and the buildout of ZEV infrastructure in-line with the ICT standard.
- Administer funding programs for zero-emission vehicle procurement and infrastructure buildout.

B. Determine asset management functions for Caltrans related to zero-emission transit bus adoption and develop roadmap for execution (New)

2024 Targeted Key Results:

- Validate proof of concept for Caltrans' role in supporting transit agencies through coordination and streamlining of zero-emission bus operations and maintenance.

Outcome:

- Work is ongoing.