Internal Services Department

Zero Emission Vehicle Plan

April 2025

ISD received a Sustainable Communities Transportation Planning Grant from Caltrans to develop a Zero Emission Vehicle (ZEV) Mobility Plan. The plan is intended to assist the County in meeting targets outlined in the 2019 Sustainability Plan.

It includes a Fleet Transition Plan, Employee Rideshare Plan, and Electric Vehicle (EV) and Charging Community Outreach and Input.

Additionally, the County Board of Supervisors requested a ZEV Master Plan to develop strategies to transition the entire County of Los Angeles fleets to ZEVs.

Awarded

Grants Planning & Administration

Caltrans Sustainable Transportation Grant

County of Los Angeles Shared and Electric Mobility Project

Create an implementation plan for fleet transition to EVs, EV shuttle routes for employees, new park and ride lots, and new Electric Vehicle Supply Equipment through:

- Fleet data collection and engagement
- Employee data collection and engagement
- Geospatial analysis
- Community engagement and input

Awarded

$675,000

Match Required

$87,454

Project Timeline

Nov 22 – Apr 25

Awarded

Grants Planning & Administration

Caltrans Sustainable Transportation Grant

Updates:

Key Findings

- 6,300 fleet vehicles to be replaced by 2038
- Employee EV use has increased 217% in 4 years
- Awareness of rideshare options is low, but interest is high
- 22% of 800 residents surveyed own an EV
- EV drivers charge in multiple locations
- EV and non-EV drivers think more chargers are needed
- 89% of non-EV drivers weekly milage can be met by existing EV models
- Most residents want to learn more about EVs

Recommendations

- Fleet vehicle replacement for
  - 3,900 Light duty
  - 2,400 Medium & Heavy duty
- 2,740 charging stations for fleet at 451 sites
- Develop a County-Employee Rideshare App
- Demand exists to expand and add employee shuttle routes
- Raise awareness about EV benefits
- Utilize existing EV drivers as ambassadors to address perceived barriers
- Train non-profits to assist residents with incentive and rebate applications
- 1 streamlined website

Introduction to ZEV Master Plan

Vision: Accelerate the transition to a zero-emission transportation system by 2045.

Scope: Fleets, infrastructure, community partnerships, workforce, equity.

Alignment: California's ZEV targets, LA County's sustainability goals.

Fleet Assessment

35

Fleets from 35 County departments were assessed

> 8,000

More than 8,000 non-emergency vehicles were included in the assessment

6,300

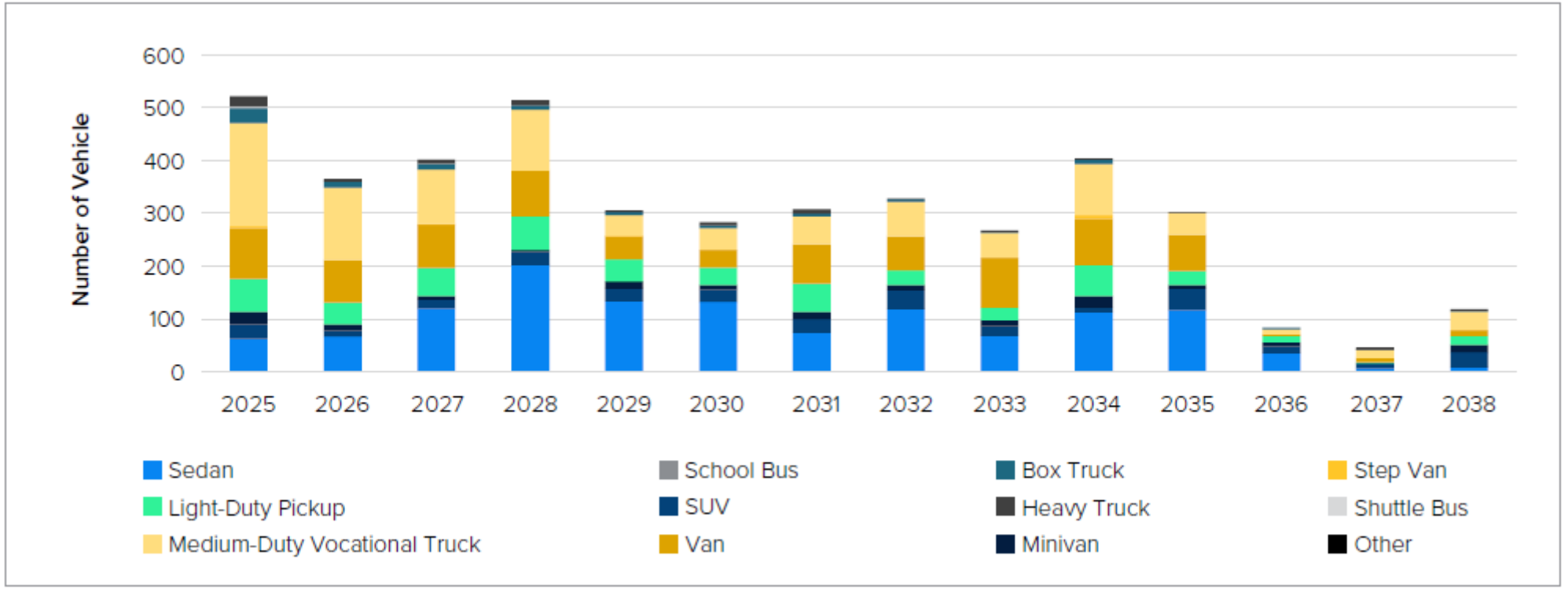
Roughly 6,300 vehicles have been recommended to be replaced

County's policy for retirement is 8 years or 110,000 miles

To avoid front-loading the timeline and due to funding backlogs,

Vehicles are only considered for retirement when they reach both the age and mileage threshold.

Timeline by vehicle type to replace 4,219 vehicles with EVs

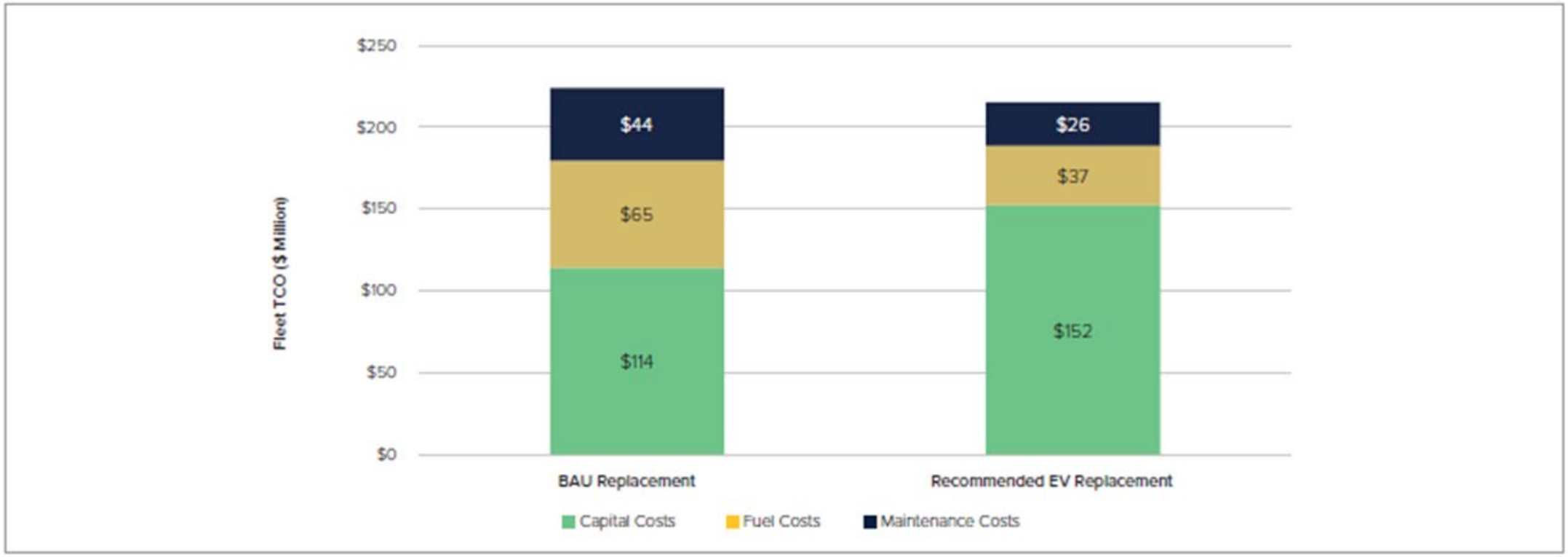


This timeline proposes 400-500 replacements per year for vehicles purchased through ISD

- Excludes DPW, Sheriff, and Fire fleets

The Total Coast to Operate (TCO) a fleet that is replaced with EVs is $8.5 million less, than the Business as Usual (BAU) case, with all vehicles being replaced with internal combustion engine (ICE) vehicles

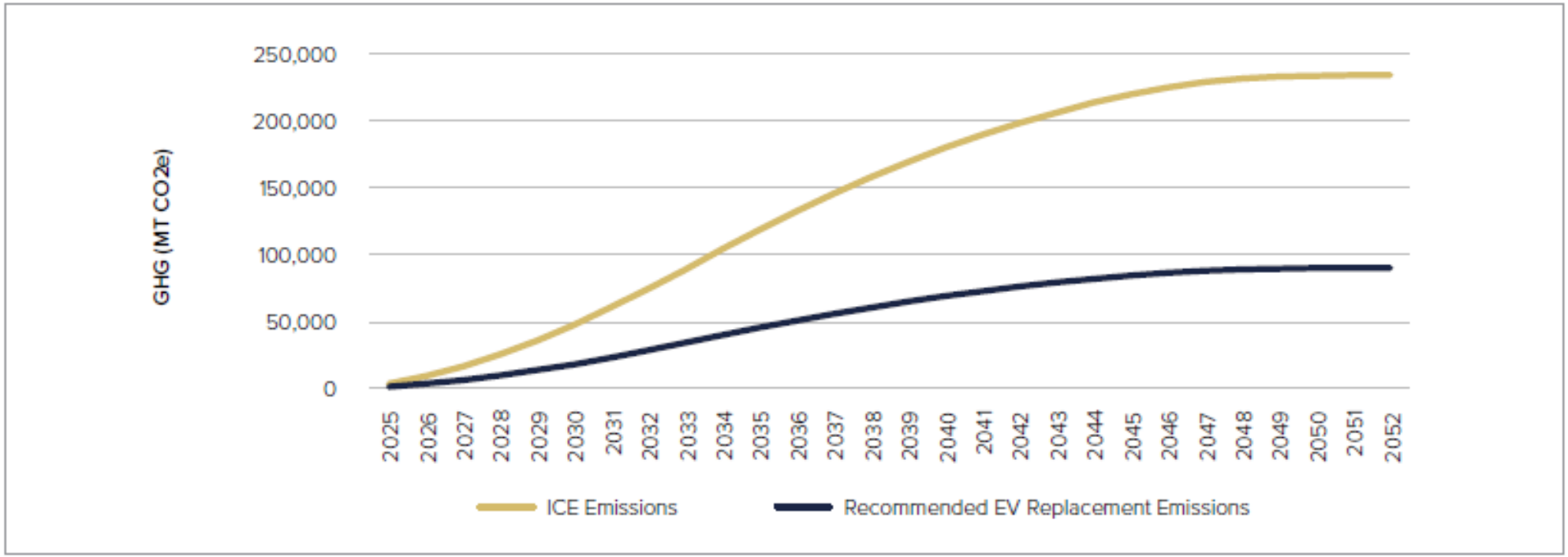
The capital costs are higher, but the fuel and maintenance costs are lower that ICE vehicles.



Transitioning ISD-purchased fleet vehicles to EVs will enable the County to achieve a 5% reduction in GHG emissions from the on-road sector:

140,553 metric ton (MT) over the complete TCO timeframe.

Cumulative GHG emissions for ICE replacements compared to EV replacements

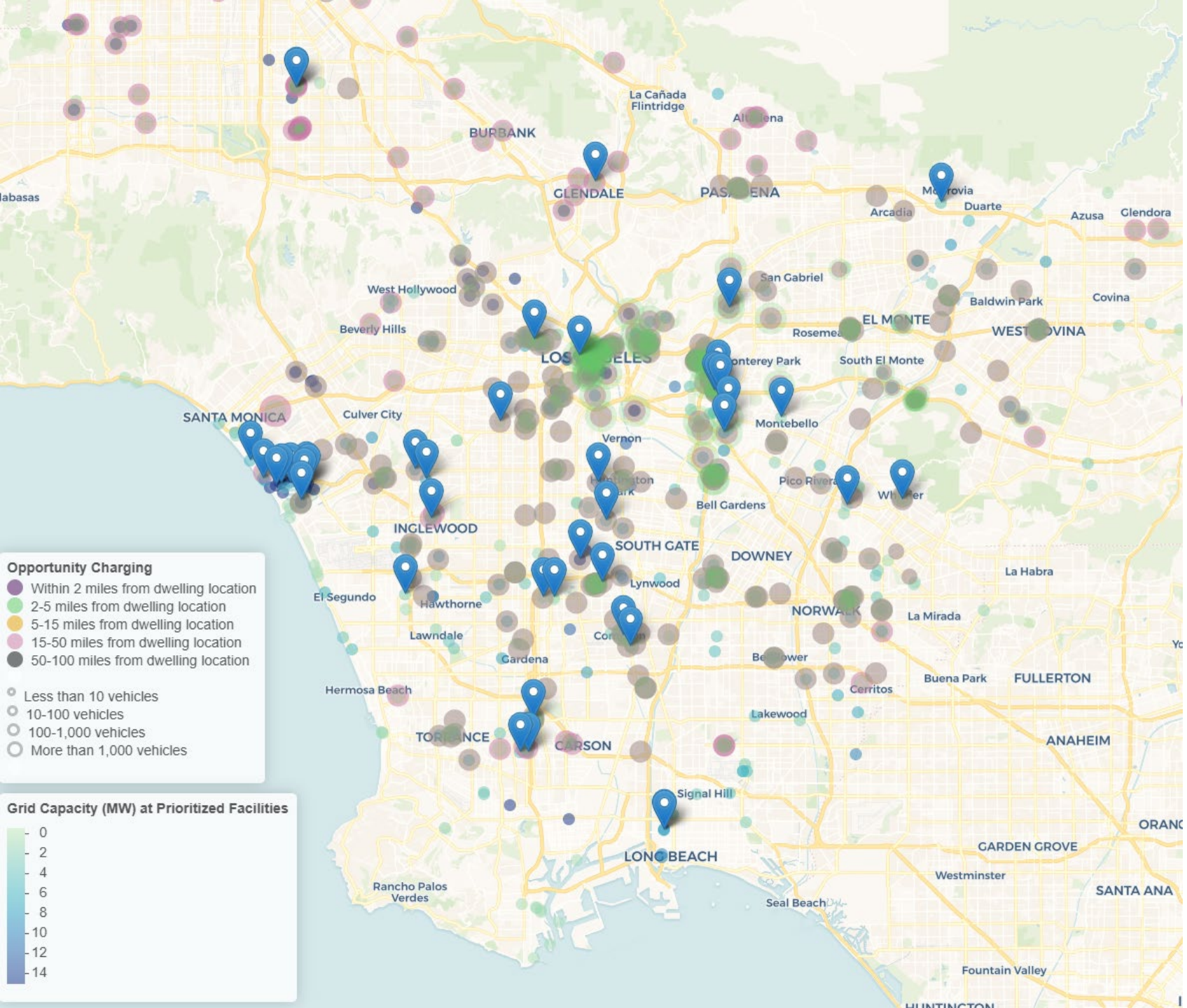


Charging Stations needed to support Fleet EVs

450 450 County sites will need charging stations

3,700 3,700 additional charging stations will be needed to serve fleet vehicles

$61M-$79M The estimated cost for charging stations and infrastructure is between $61 and $79 million.



Map of Prioritized Sites for EV Charging for Fleet Opportunity, Employees and the Public

- ISD created a 10-year prioritization list of facilities for deploying charging infrastructure
- The map enhances the prioritization by including data from the County Mail Services vehicle routes and grid capacities information from LADWP & SCE
- The charging needs assessment focuses on overnight charging for fleet vehicles. Consequently, during daytime hours, these chargers may also be open for use by employees and local residents

Overview of ZEV Master Plan Recommendations by Pillar

Policies and Programs	•Update zoning codes for building retrofits •Enable curbside charging installations •Designate zero-emission vehicle zones •Promote multi-use charging hubs
Workforce Development	•Improve existing training & apprenticeship programs •Build regional partnerships
Regional EV Charger Deployment	•Implement usage & performance monitoring •Improve charging infrastructure resilience
Community Outreach & Engagement	•Raise EV ownership transparency and awareness of current regulations & incentive programs •Showcase EV model applications by County •Facilitate communication with community, government & business
Promote P3	•Improve public procurement processes •Encourage new charging business models •Improve rate setting and revenue sharing procedures
Lead by Example	•Update fleet procurement and budget planning policies •Enhance current procedure for charger deployment, maintenance & operation •Encourage EV carsharing between employees

Policies and Programs

Goals

- Develop recommendations on programs and code amendments that would expand EV charging zones in all appropriate areas in Los Angeles County such as for EV charging stations for new residential and nonresidential developments that incorporate standards from the California Green Building Standards Code
- Identify obstacles in the permitting of EV chargers in the County and contracted cities, and provide recommendations for improvements to the process, ensuring compliance with AB 1236, AB 970, and AB 126.

Recommendations

Require that certain types of building retrofits (over a certain cost threshold or over a certain area of lot size) come with EV charger installations or be EV Ready.

Develop policies that allow curbside charging installations in urban areas to serve residents without dedicated parking. May require changes to LA County Department of Public Works (DPW) street lighting guidelines.

Identify certain regions in the County as focus regions for installation of ZEV infrastructure and increased usage of ZEVs to advance goals around environmental justice and reduce existing pollution burdens - particularly near transit corridors, commercial districts, and high-density residential zones.

Promote mixed-use developments that integrate EV charging stations with retail, dining, and community services to maximize utilization.

Workforce Development

Goals

- 30,000 job placements in 2025
- 100,000 job placements by 2035
- 200,000 job placements by 2045

Recommendations

Monitor development, recruitment, enrollment, graduation rates of programs which educate the next generation of installers, maintenance workers and EV mechanics through education and workplace programs

Consolidate current training opportunities and available programs into a centralized hub for regional workers and employers; incorporating trainee personal stories could provide personal testimonials for these programs.

Connect with other municipalities and charging providers to serve as a bridge to match certified technicians with job placements.

Serve to centralize the hiring information and job openings from the local charging companies, to help enable hiring for trainees.

Regional EV Charger Deployment

Goals

Scope	Timeline	Target
Countywide	By 2025	60,000 new public EV charging stations (2018 baseline) 30% of all new light-duty (LD) private vehicles are ZEVs
	By 2035	130,000 new public EV charging stations 80% of all new LD private vehicles are ZEVs
	By 2045	100% of all new LD private vehicles are ZEVs
County Operations	By 2025	5,000 EV charging stations at County facilities 100% of non-emergency LD vehicle purchases to be ZEVs
	By 2035	15,000 EV charging stations at County facilities 100% of MD vehicle and emergency LD vehicle purchases to be zero-emission
	By 2045	100% of all vehicles in the County fleet to be zero-emission or better

Recommendations

Establish a standardized system for tracking and monitoring key performance metrics of EV charging infrastructure, beginning with those funded by public dollars

Establish on-site renewable energy resources and pilot programs for off-grid charging options such as battery-electric storage, mobile chargers and microgrids.

Encourage technological advancements to enhance the feasibility and reliability of smart and managed charging technologies with researchers, utilities, service providers.

Community Outreach and Engagement

As part of the LA County ZEV Mobility Plan, the William C. Velasquez Institute (WCVI) was assigned to collect feedback from residents in the Gateway Cities of LA County regarding their requirements for EV charging stations, park and ride lots, and the information and resources needed to overcome obstacles to purchasing electric vehicles.

This task was accomplished through a survey developed by ISD. WCVI carried out the project from June 3, 2024, to October 31, 2024, visiting 27 out of the 29 Gateway Cities and conducting 27 events to survey residents.

Recommendations

- Conduct targeted outreach with residents and business owners to increase their financial literacy of EV ownership and awareness the recent regulations, policies, and incentives.
- Increase County and other public agencies' visibility at EV events, showcasing real-world EV applications and use-cases.
- Continue coordinating with external partners and stakeholders on facilitating regional EV community outreach and engagement
- Collaborate with local organizations and cities to promote the existing EV resources website and establish a centralized hub for all information.
- Set up communication channels within County departments for updates on the County's EV transition and public outreach efforts

Promote P3

Goal

In 2019, the County Sustainability Plan outlined a key goal (#12) to commit to “realize OurCounty sustainability goals through creative, equitable and coordinated funding and partnerships”. Included in this goal was several actions, including action #155 to “assist County departments, in conjunction with the Center for Strategic Partnerships, to develop innovative P3 support he implementation of OurCounty actions, including consideration of proposals and solicitations.”

Additionally, as part of the 2024 BOS motion, the ZEV Master Plan was tasked with including “partnership opportunities with private, government, and non-governmental entities to ensure best practices including, but not limited to, LACI and the public-private TEP.”

Recommendations

- Develop a bench or pool of pre-qualified private sector partners who specialize in the installation, maintenance and future-proof of EV charging stations.
- Create a set of contracting vehicles specifically for the procurement of EV fleet vehicles.
- Facilitate regional P3 collaborations to establish new business models such as shared charging networks, charging with reservations, charging as a service
- Establish clear policies and procedures to ensure fairness and transparency in EV charging rates setting and revenue sharing mechanism.

Lead by Example Goal

- By 2045: 100% of **all** vehicles in the County fleet to be ZEVs
- 25,000 new chargers by 2045
- 100% of LD fleet and 95% of MD/HD fleet be ZEVs by 2045

Recommendations

Ensure the County fleet operations adhere to existing County policies and state mandate and monitor vehicle usage to identify potential limitations and constraints of EVs.

Facilitate internal and external coordination and allocate necessary resources to ensure that chargers are energized and operational in time for fleet vehicle charging.

Explore opportunities to expand County-owned charging infrastructure network to offer access for fleet en-route charging, County employees, and local residents.

Integrate EVs into County carsharing and vanpool programs, and offer incentives to encourage their use

Conclusion

- Bold roadmap for a cleaner, more equitable, and resilient transportation future
- Grounded in data, community collaboration, and regional leadership
- Six strategic pillars:
  - Policies & programs
  - Workforce development
  - Charger deployment
  - Community engagement
  - Public-private partnerships
  - Leading by example
- Strong equity focus: Over 50% of EV infrastructure in disadvantaged communities
- Enhances affordability, accessibility, and trust in EVs
- Emphasizes cross-sector collaboration and shared economic/environmental benefits
- A living plan guiding action toward a zero-emission future by 2045

County of Los Angeles
Zero-Emission Vehicle Master Plan

Draft Report
April 2025

Thank You!

Contact Us

For any questions, please contact us using the resources listed below

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