



→ **Countywide Zero Emission Vehicle (ZEV) Infrastructure Plan**  
Placer County Transportation Planning Agency (PCTPA)



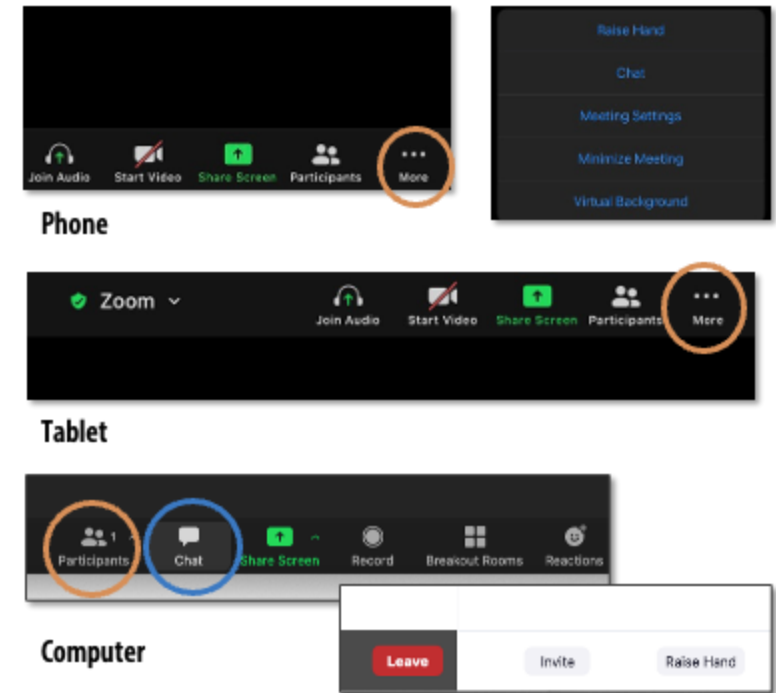
Virtual Workshop

November 5, 2025



# Workshop Logistics

- Zoom orientation:
  - You will remain muted during the presentation to limit any background noise.
  - Add any questions or comments to the chat box.
  - We will answer as many questions as possible.
  - A recording of this meeting and summary will be posted to the website.
- Workshop materials will be posted:  
<https://www.pctpa.net/zev>



# Agenda

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- Welcome and Introductions
- Background and Motivation
- Future Trends/Needs
- Siting Analysis
- Public Engagement
- Pilot Projects
- Discussion/Q&A
- Next Steps



# Meet the Presenters

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**Placer County  
Transportation  
Planning Agency**

David Melko  
Principal Transportation Planner



Sam Pournazeri  
Project Manager

Theodora Konstantinou  
Technical Lead



Katie DeMaio  
Senior Outreach Manager

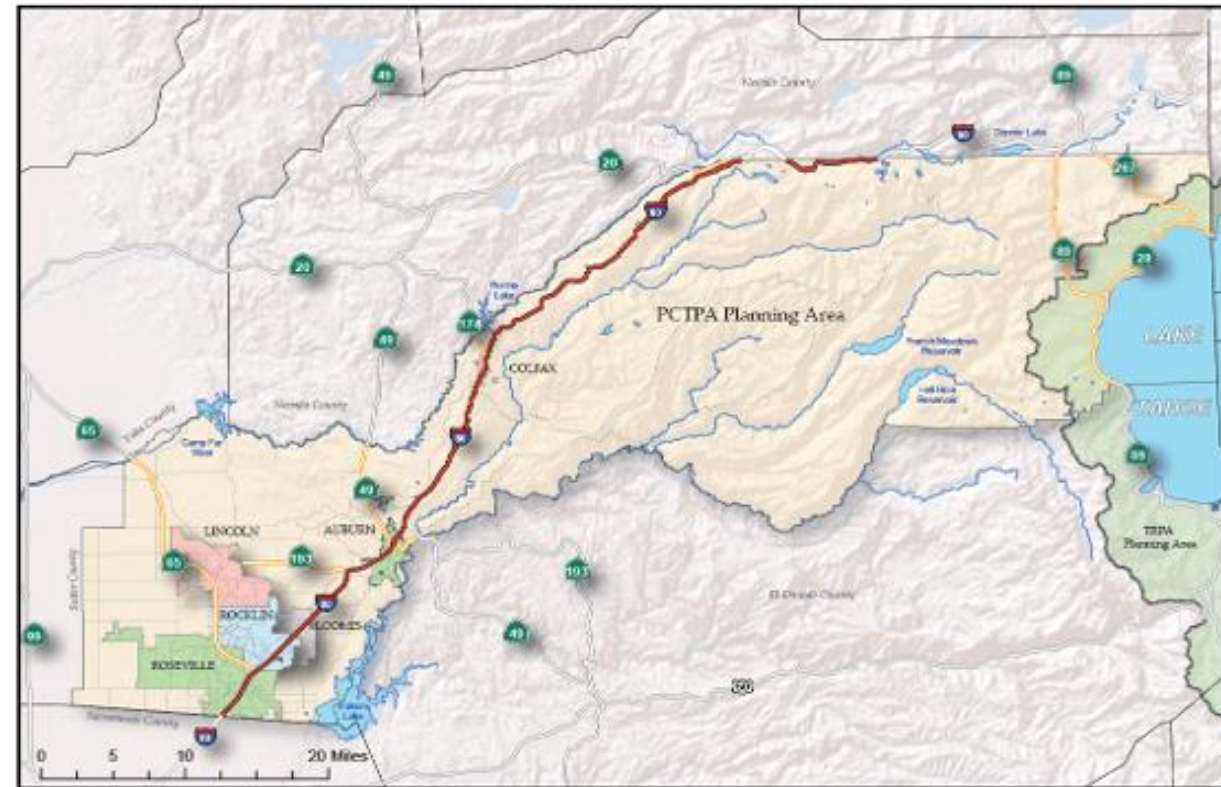
# Which community do you live in?

- Auburn
- Colfax
- Lincoln
- Loomis
- Rocklin
- Roseville
- Unincorporated Placer County
- Other (please put in chat)



# Who is PCTPA?

- PCTPA serves as the Regional Transportation Planning Agency.
- Coordinates across cities and the County to shape Placer County's transportation future.
- Guides transportation investments and meets state/federal requirements.
- Maximizes funding opportunities for local projects.
- Directs funds to improve mobility by car, bus, bike, and foot.



# ZEV Infrastructure Plan

- ZEVs are rapidly growing across all vehicle types.
- Infrastructure is key for charging and fueling.
- Planning is essential to guide smart, equitable investment.
- A ZEV Plan sets the roadmap for building this network.



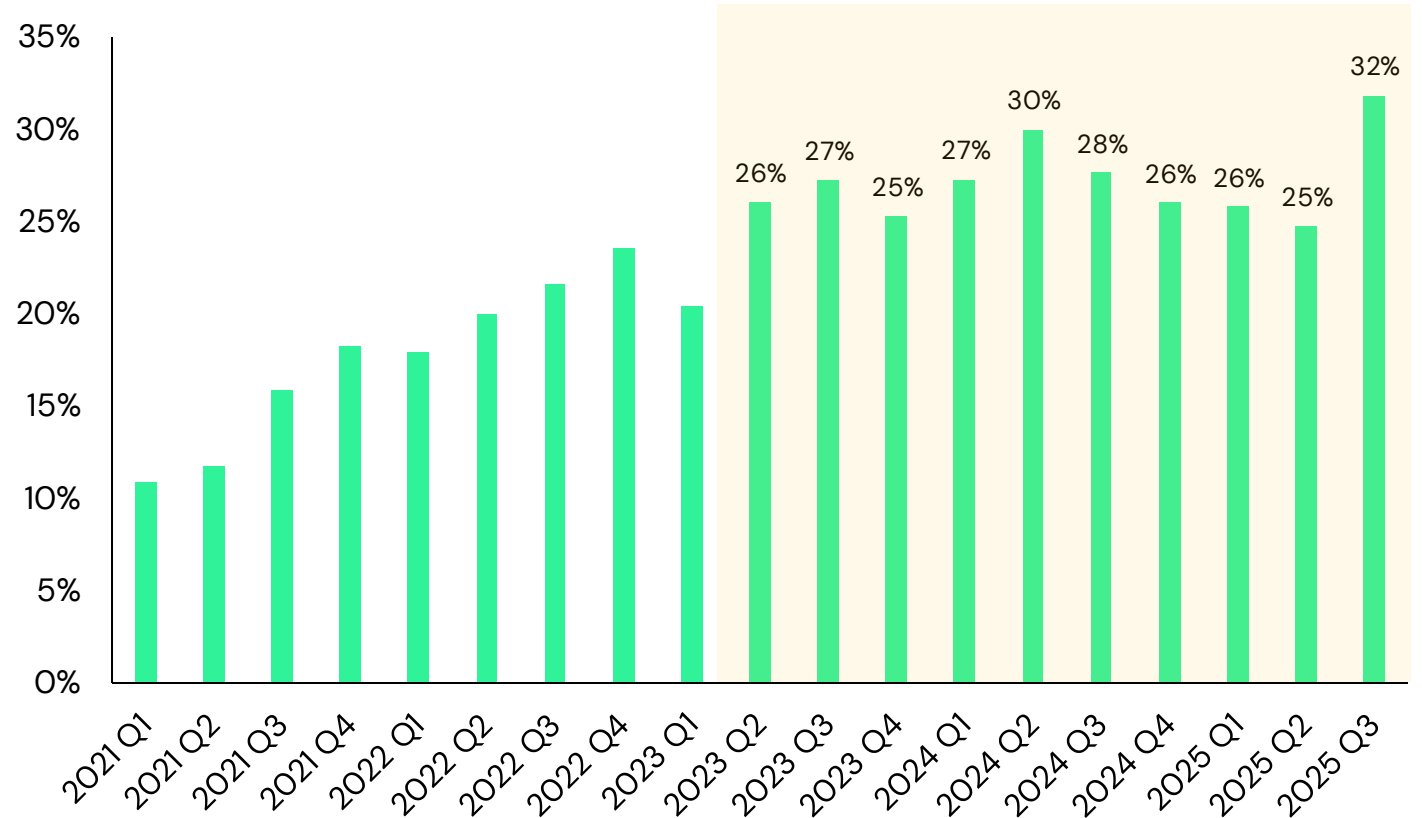
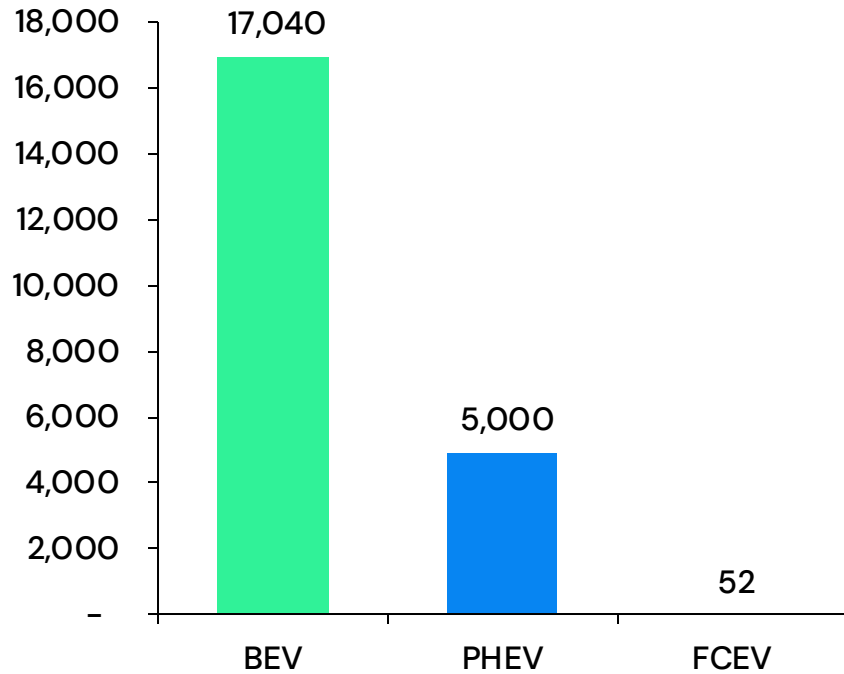


# The Need for Change

# Where We Stand Today

Over **22,000** ZEVs are registered in the County, out of approximately 350,000 total registered vehicles  
*(As of December 2024)*

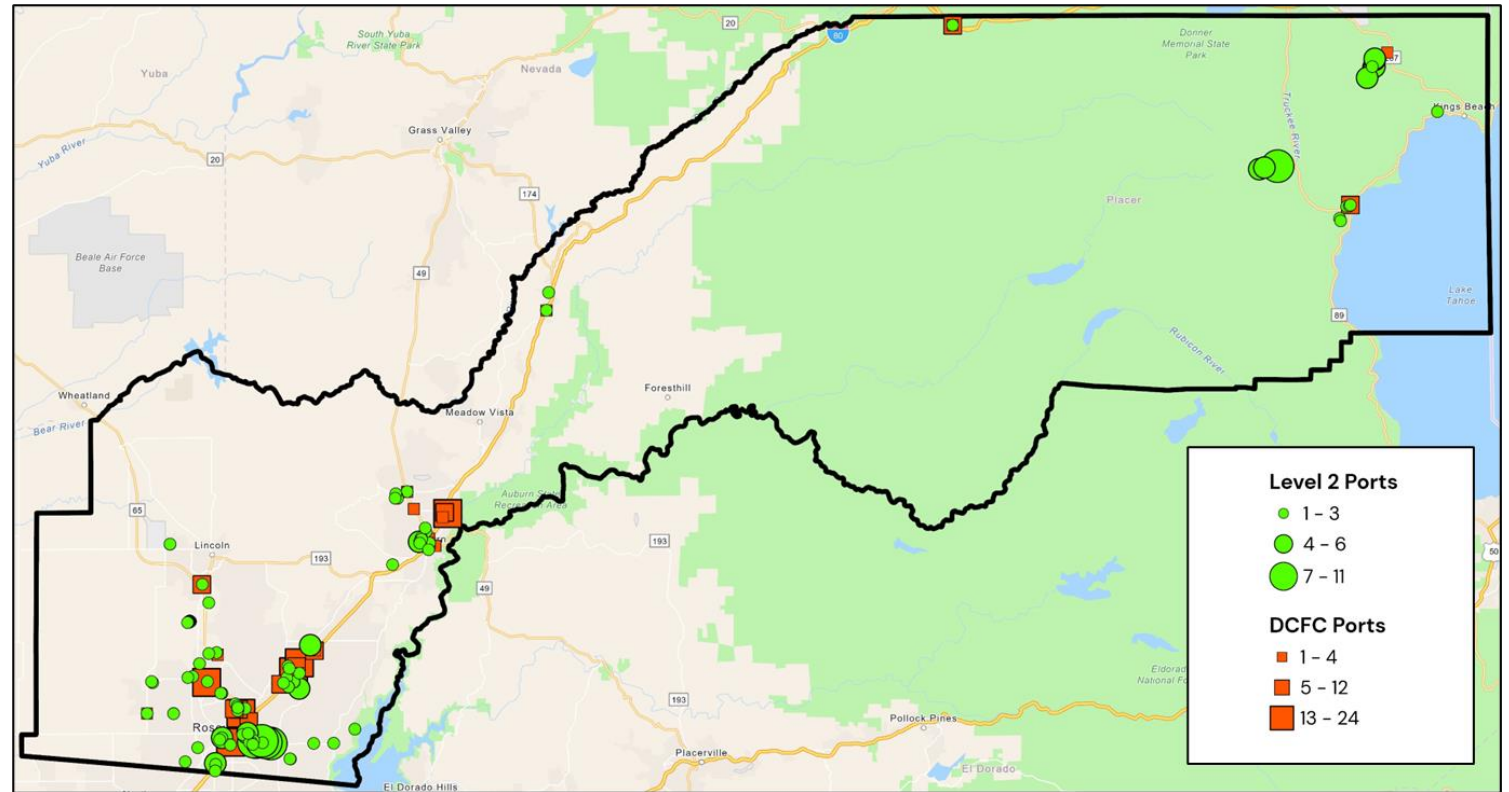
Since Q2 2023, around **1** in every **4** vehicles sold in Placer County was a ZEV



Notes:  
 BEV: Battery Electric Vehicle  
 PHEV: Plug-In Hybrid Electric Vehicle  
 FCEV: Hydrogen Fuel Cell Electric Vehicle

# More than 570 Ports Across the County

- Placer County ranks **44<sup>th</sup>** in the state for electric vehicles per charging port
- Most EV chargers are in urban areas of Placer County. Rural areas have limited charging infrastructure
- Almost **70%** of fast chargers are Tesla Superchargers
- Currently, there is no charging infrastructure for medium and heavy-duty vehicles
- Despite fewer infrastructure today, Placer County is **one of California's fastest-growing counties**, with strong population and EV adoption growth expected to increase demand
  - 19.4% increase between 2010 and 2022



# Why ZEV Infrastructure Matters

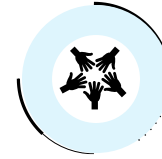
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Economic Growth



Job Creation



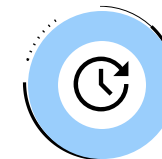
Community Benefits &  
Equitable Access



Consumer Confidence

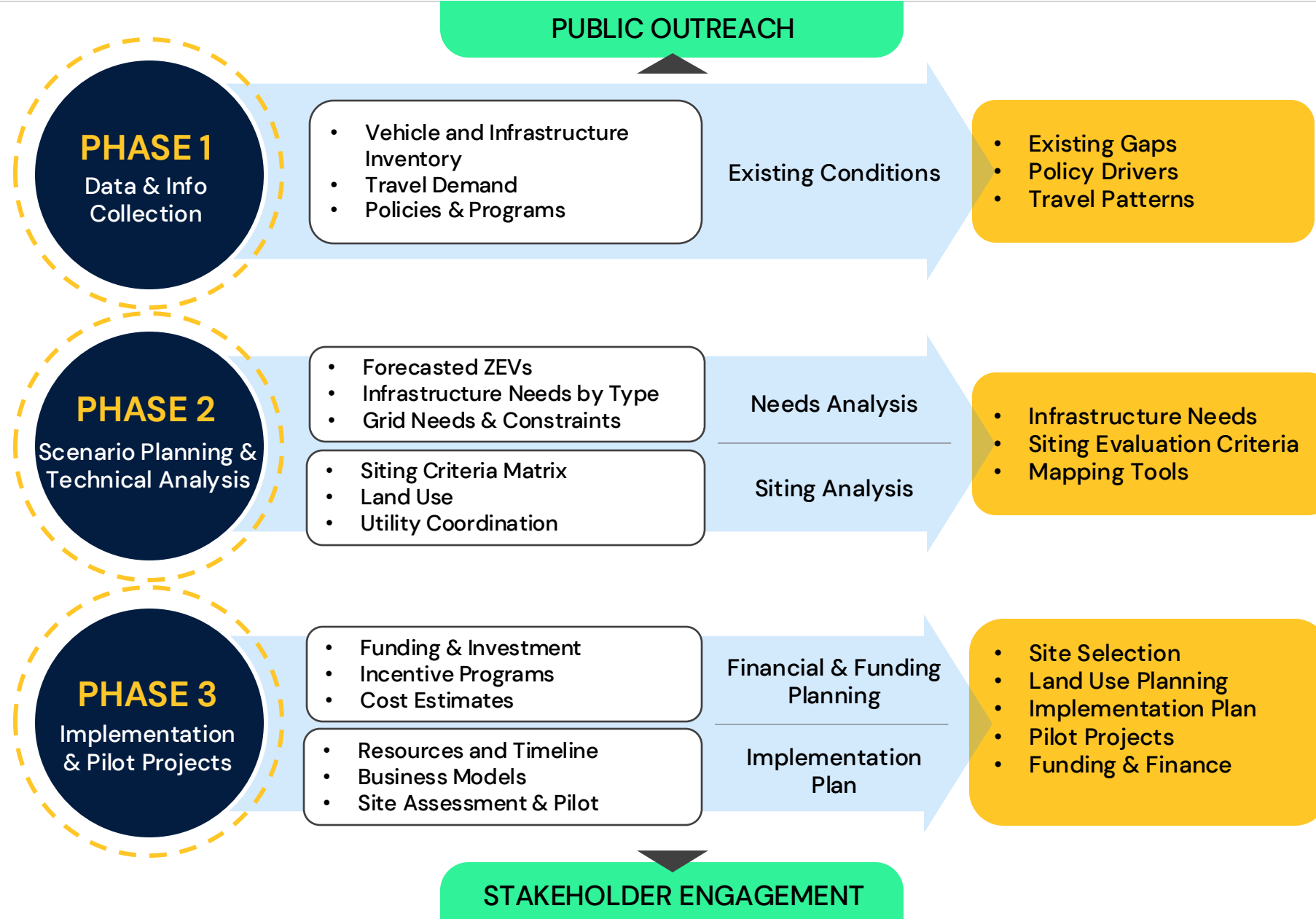


Innovation & Partnerships



Future Readiness

# Approach At-A-Glance

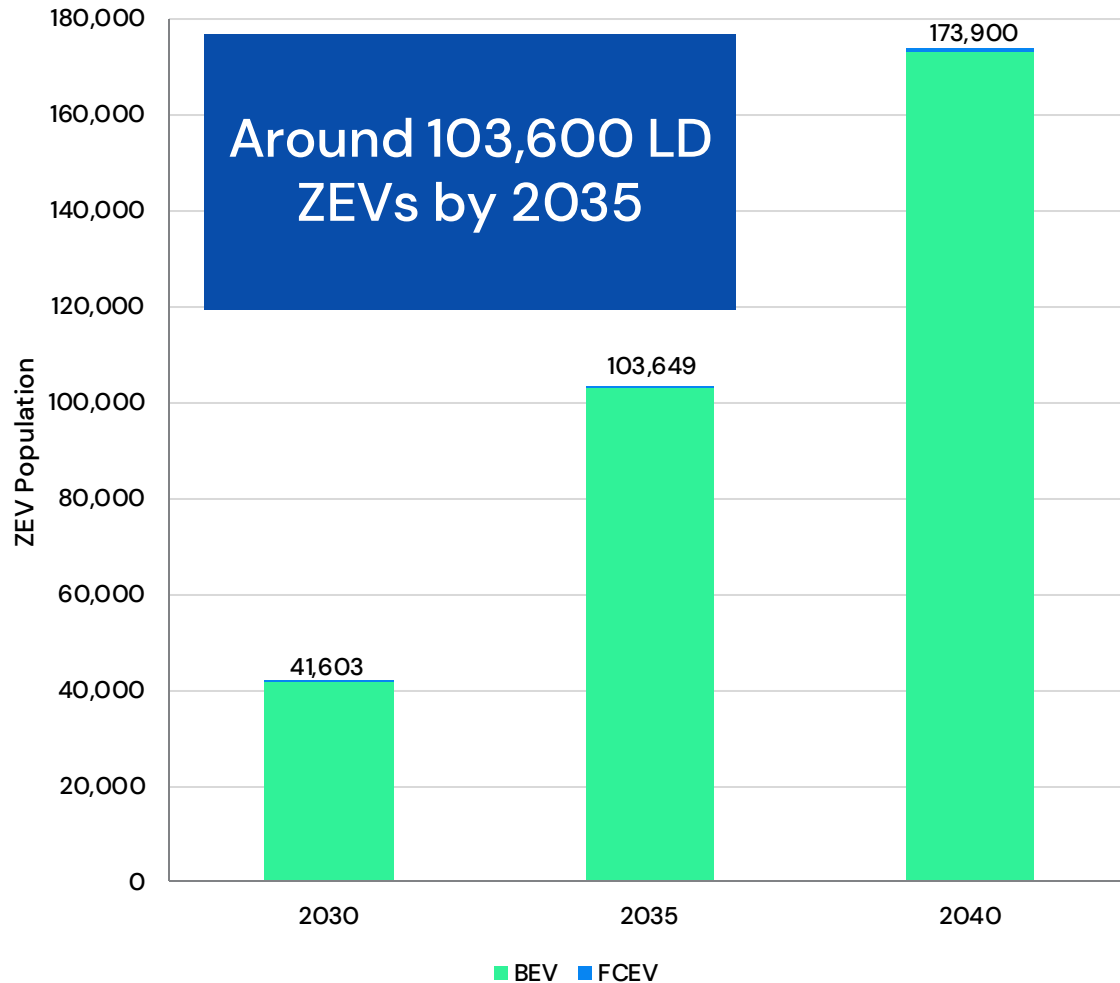




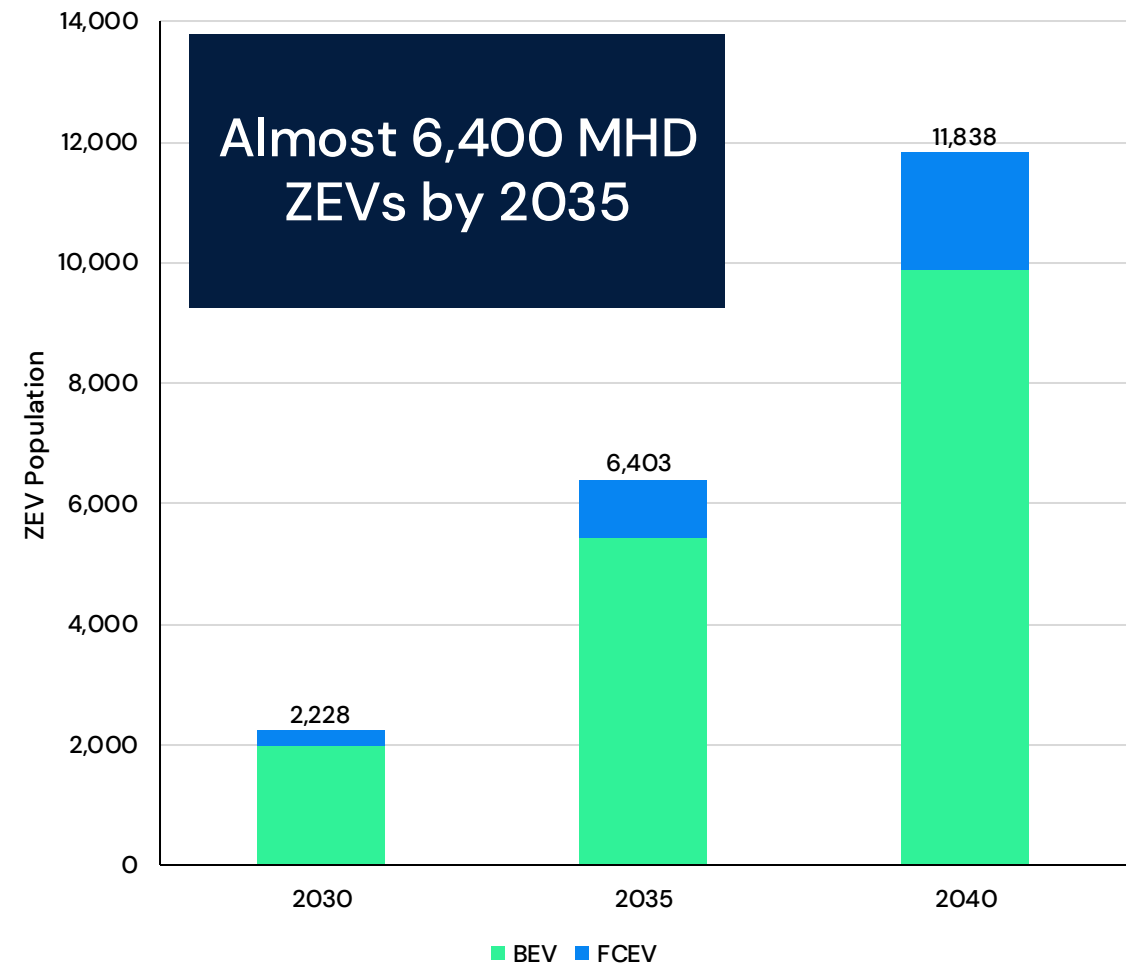
# The Road Ahead: How Demand Will Evolve

# ZEV Population Forecast

## Light duty (LD) ZEV Population Forecast

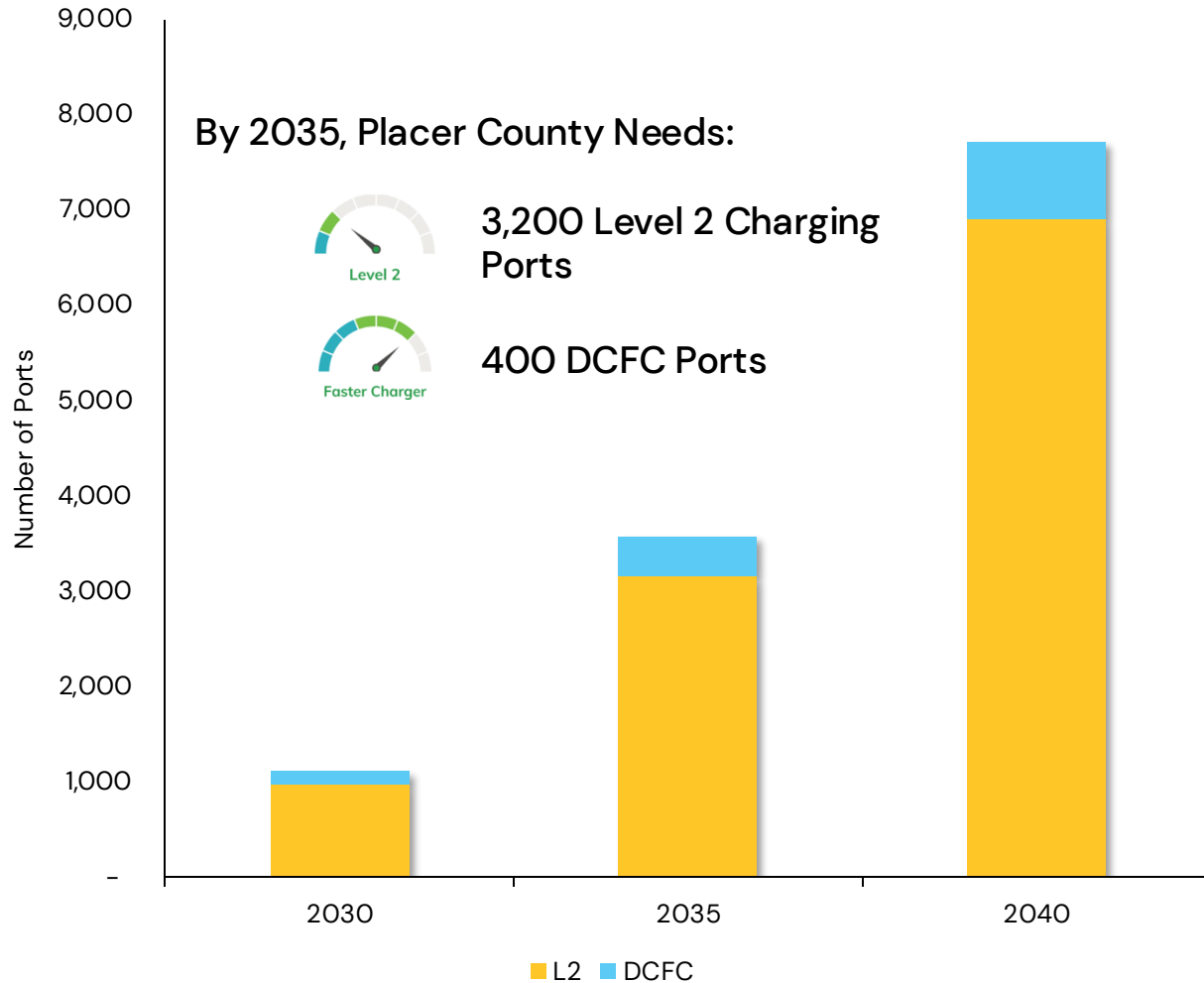


## Medium/Heavy-Duty (MHD) ZEV Population Forecast

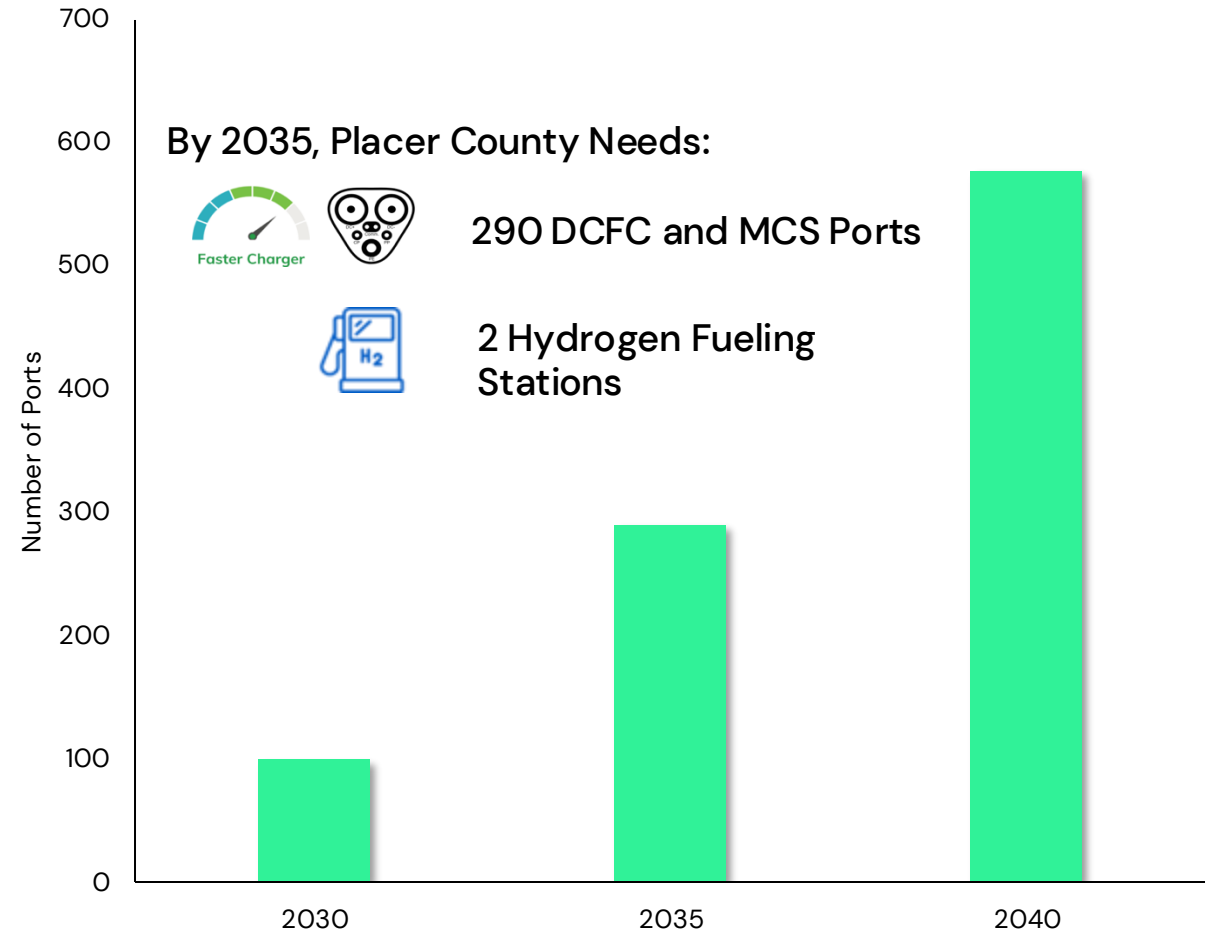


# ZEV Public Infrastructure Forecast

## Number of Public Charging Ports for LD Vehicles



## Number of Public Charging Ports for MHD Vehicles



Notes:  
 DCFC: DC Fast Charging  
 MCS: Megawatt Charging System



## Live Poll #2

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**Do you own a Zero Emission Vehicle (ZEV)?**

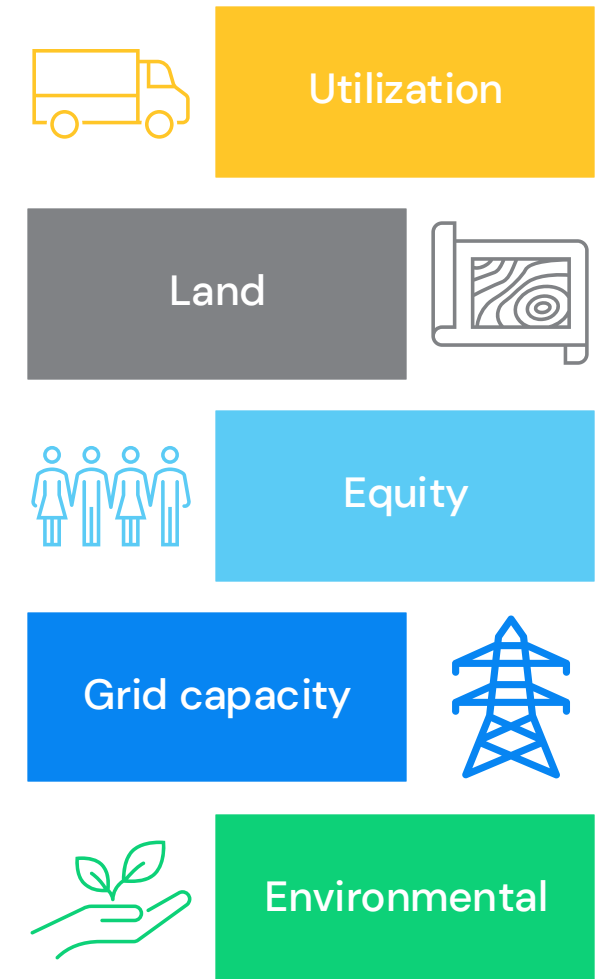
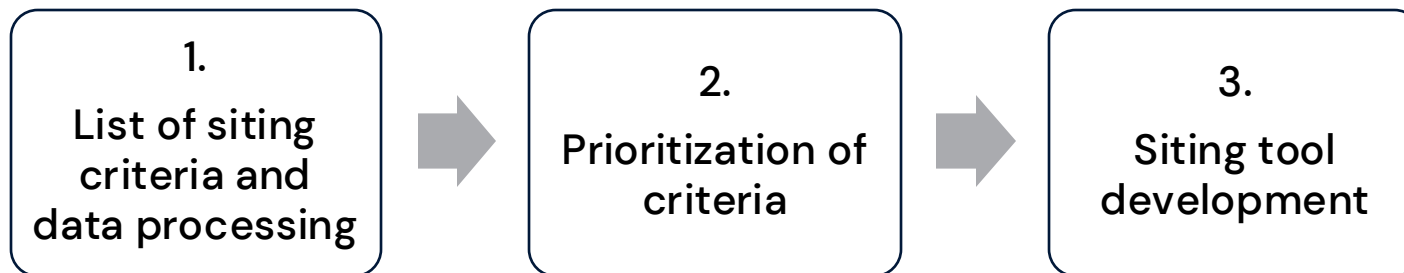




Using Data to Drive  
Appropriate Infrastructure  
Decisions

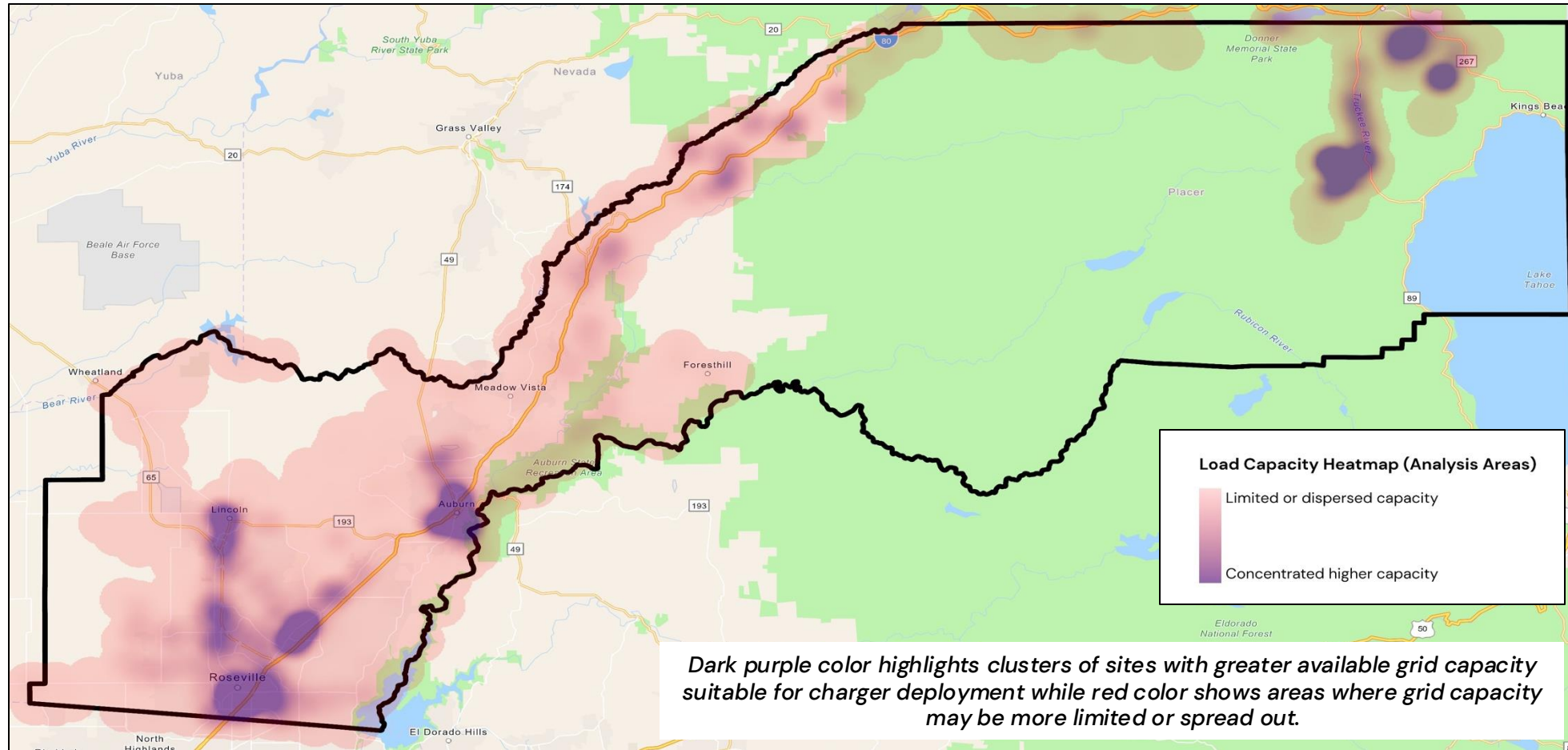
# Siting Analysis

- Goal: Identify suitable locations for light-duty, medium/heavy-duty EV and hydrogen public refueling infrastructure
- Multi-criteria decision making analysis (MCDA) approach to prioritize sites
- Exclusion of sites based on size and land use



# Understanding Grid Constraints

Grid constraints refer to limits in the local electrical system's ability to supply enough power for new EV chargers



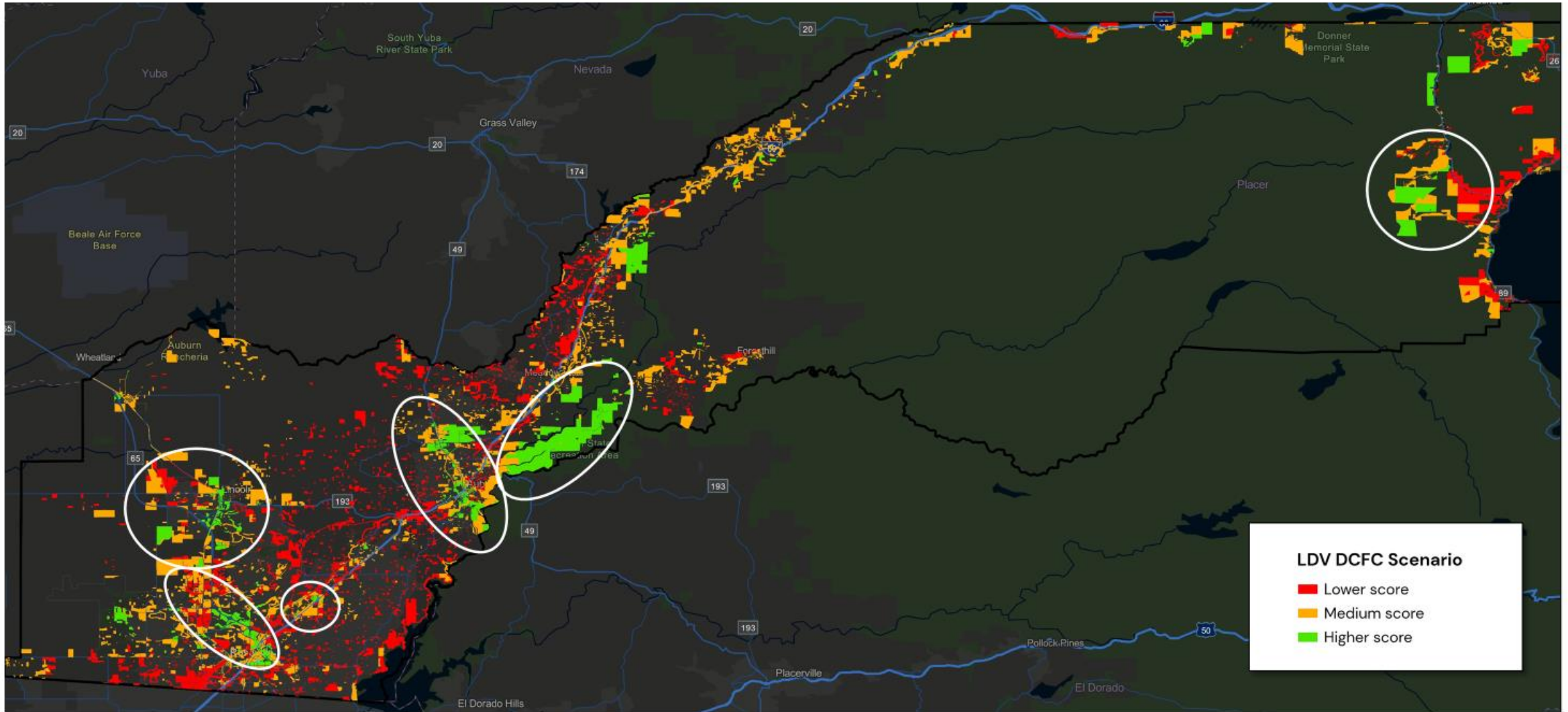
Urban areas (e.g., Auburn, Lincoln, Rocklin, I-80 corridor) generally have higher grid capacity.

Rural and eastern county areas have lower or dispersed capacity and may need upgrades.

Early coordination among cities, utilities, and developers is key to prevent delays and ensure grid readiness.

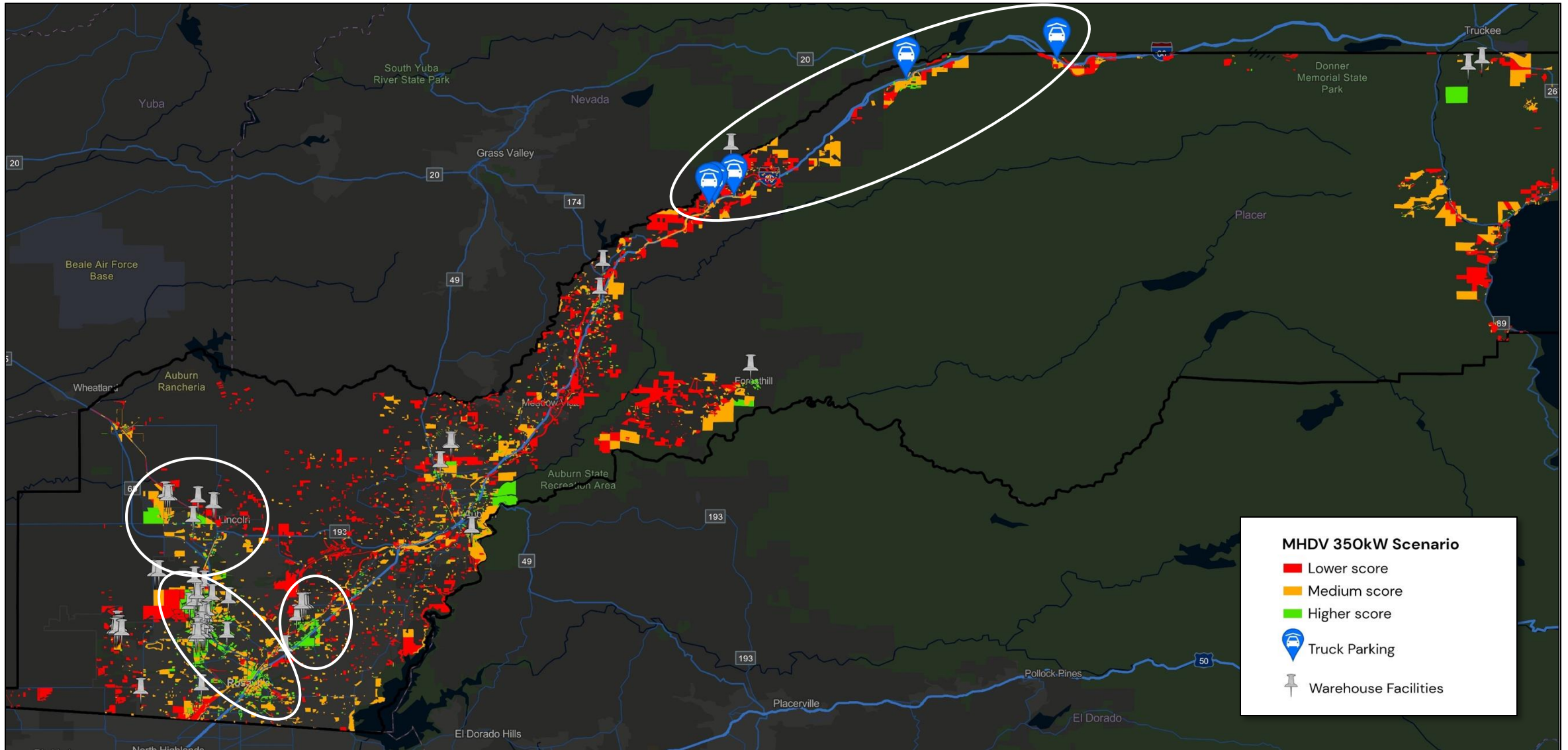
Load Capacity Data Sources:  
PG&E: [Grid Resource Integration Portal](#)  
[CEC EVSE Deployment and Grid Evaluation \(EDGE\) Tool](#)  
Discussions with Roseville Electric

# Priority Zones for ZEV Infrastructure Deployment – LDV DCFC



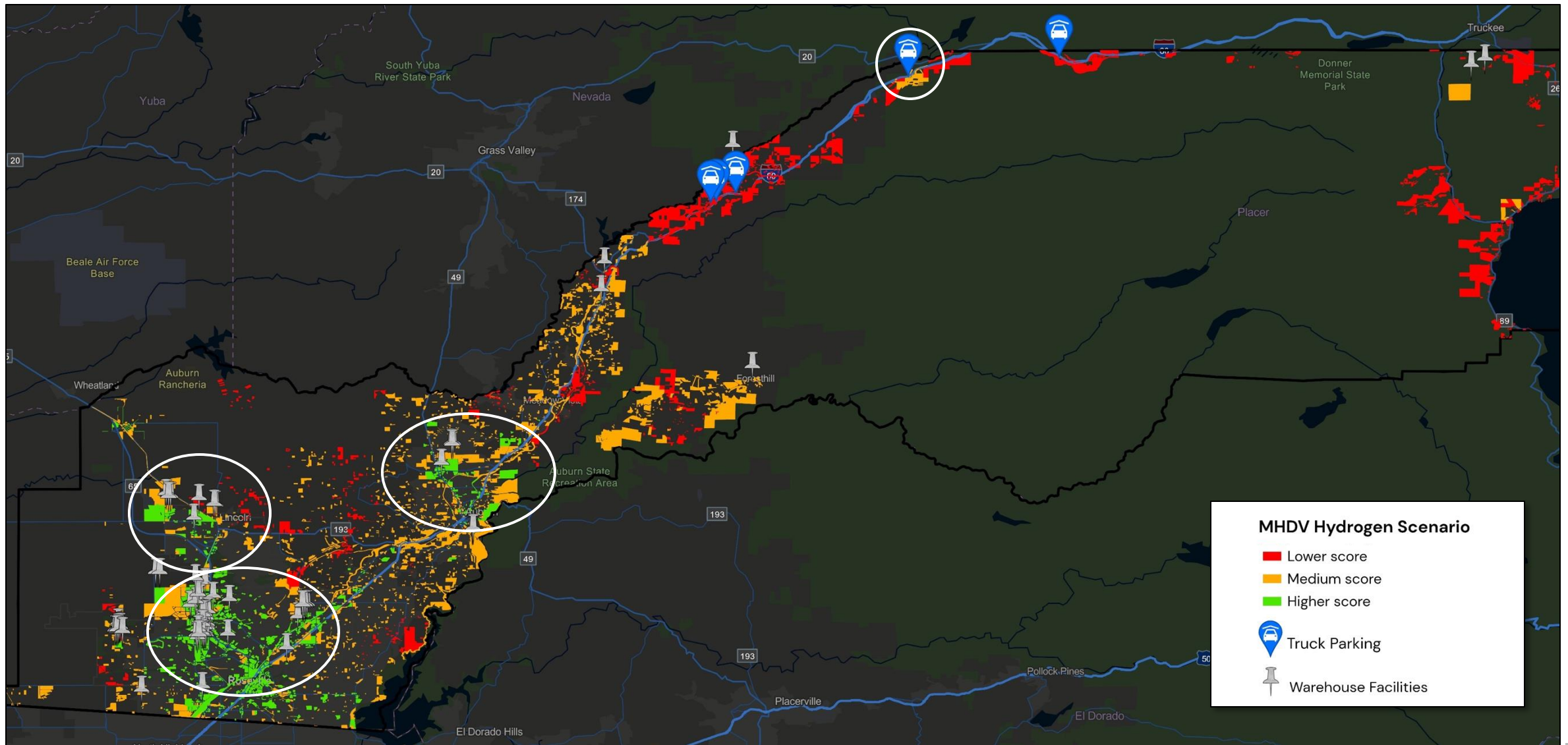
Notes:  
White circles indicate example priority zones  
LDV: Light-duty vehicles  
DCFC: DC fast charging

# Priority Zones for ZEV Infrastructure Deployment – MHDV 350 kW



Notes:  
White circles indicate example priority zones  
MHDV: Medium-/heavy-duty vehicles

# Priority Zones for ZEV Infrastructure Deployment – MHDV Hydrogen



Notes:  
White circles indicate example priority zones  
MHDV: Medium-/heavy-duty vehicles

# Mapping Tool

PCTPA ZEV Infrastructure Siting Analysis Tool by [Cambridge Systematics, Inc.](#)



## ZEV Infrastructure Siting Analysis Tool



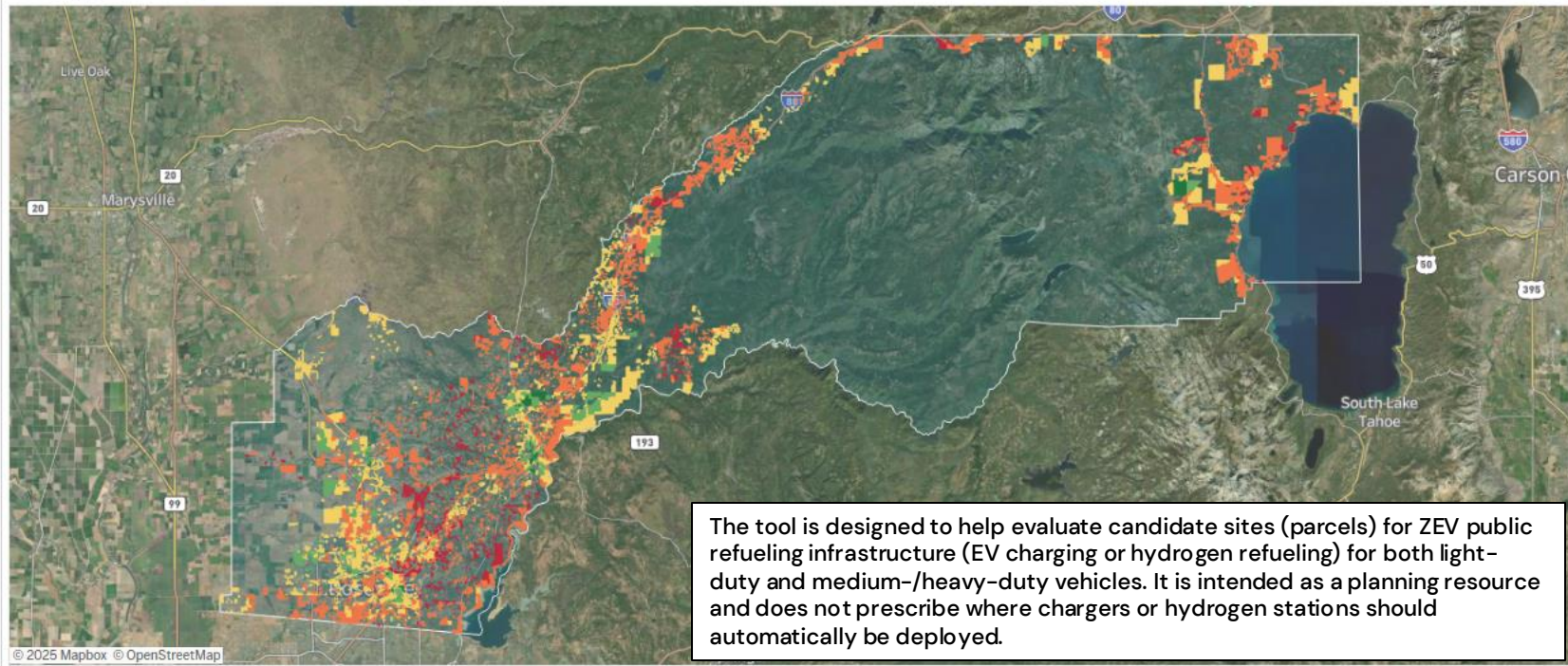
- Home
- Quick Start Guide
- Site Typologies
- Siting Criteria

**Selection Panel**

Scenario Year	Vehicle Type	Technology	Typology	Charger Type	Select a siting criterion	Select a Land Use to filter parcels
Base	Light-duty Vehicle (LDV)	Electric (for LDV and MHDV)	Large	Level 2 Chargers (LDV EV)	Weighted Composite Score	(All)

→ Weighted Composite Score

- EV Charging Stations
- Logistics Facilities
- Truck Parking



View on Tableau Public

Navigation icons: back, forward, search, share, print, refresh.



<https://public.tableau.com/app/profile/cambridge.systematics7294/viz/PCTPAZEVInfrastructureSitingAnalysisTool/WelcomePageInfrastructureSitingAnalysisTool/Home>



# Caveats

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This is just a countywide screening tool, not a site-selection tool.



Parcel scores are only comparative; all sites still need detailed, parcel-specific assessments.



Zoning and land use data have inconsistencies (e.g., "vacant" parcels may already be developed).



Cross-checks were applied, but some errors remain at the county scale.



# Voices That Shaped the Plan

# Community Engagement

Community Popups (June - September 2025)

**300+**  
Residents Engaged  
at 10 Community  
Events

## Community Events

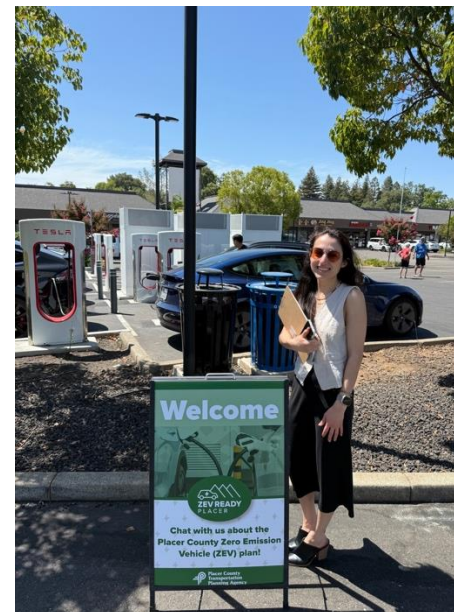
- Placer County Fair
- Rocklin Hot Chilli & Cool Cars
- Colfax Railroad Days
- Auburn Co-Op Faire
- Lincoln High School Back to School Fair
- Placer Senior Resource Fair

## Farmers Markets

- Fowler Ranch
- Auburn Old Town

## Locations

- EV Charging Station
- Moonraker Brewery



# Survey Overview & Key Demographics

Survey Period: June – August 2025

## Survey Participation

544

Total Survey Responses

- Top Areas: Rocklin (90), Roseville (134), Lincoln (59), Auburn (38)
- **73%** earn \$100,000+ annually
- **41%** work from home
- **60%** 20 miles or less daily commute

## Current EV Adoption in Placer

42.7%  
Currently Own/Lease an EV

- **44.3%** use electric/hybrid as primary transport
- **24%** of non owners plan to buy EV next
- **73%** earn \$100,000+ annually
- **41%** work from home

## Barriers & Challenges

### Top Barriers for Non-EV Owners

- 1 Range anxiety (53%)**  
Primary concern about running out of charge
- 2 Purchase cost (50%)**  
EVs too expensive to buy or lease
- 3 Battery concerns (47%)**  
Replacement costs and longevity worries

### Current EV Owner Challenges

- 1 Expensive charging (43%)**  
Tesla stations noted as particularly costly
- 2 Unreliable equipment (33%)**  
Broken or inconsistent performance
- 3 Station availability (26%)**  
Busy stations and slow charging

## Priority Locations for New Infrastructure

Grocery Stores & Shopping Centers

69%

Parks & Community Centers

35%

Highway Rest Stops

57%

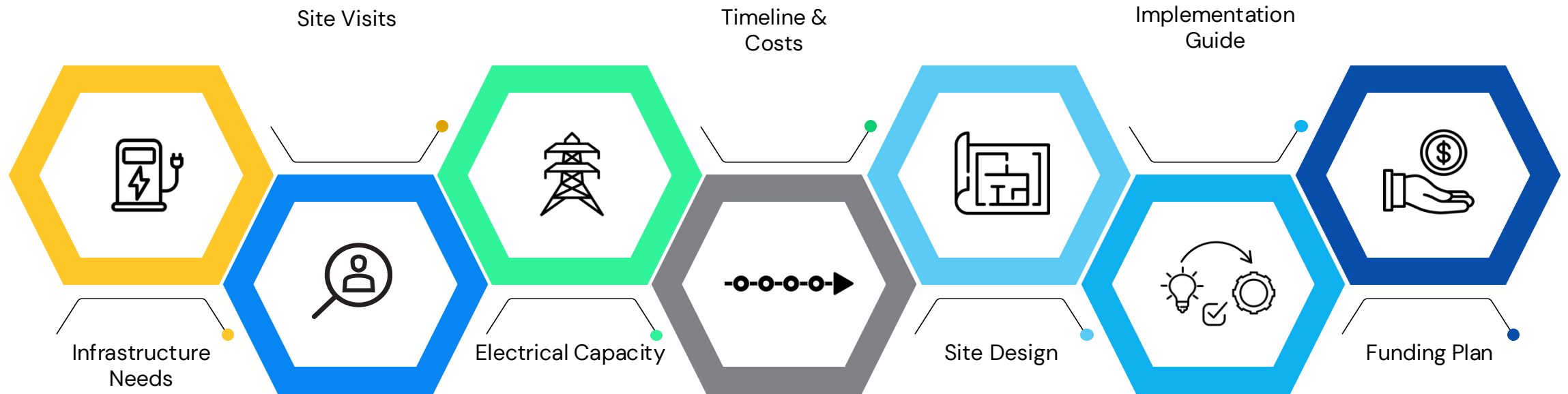
Business Districts

29%



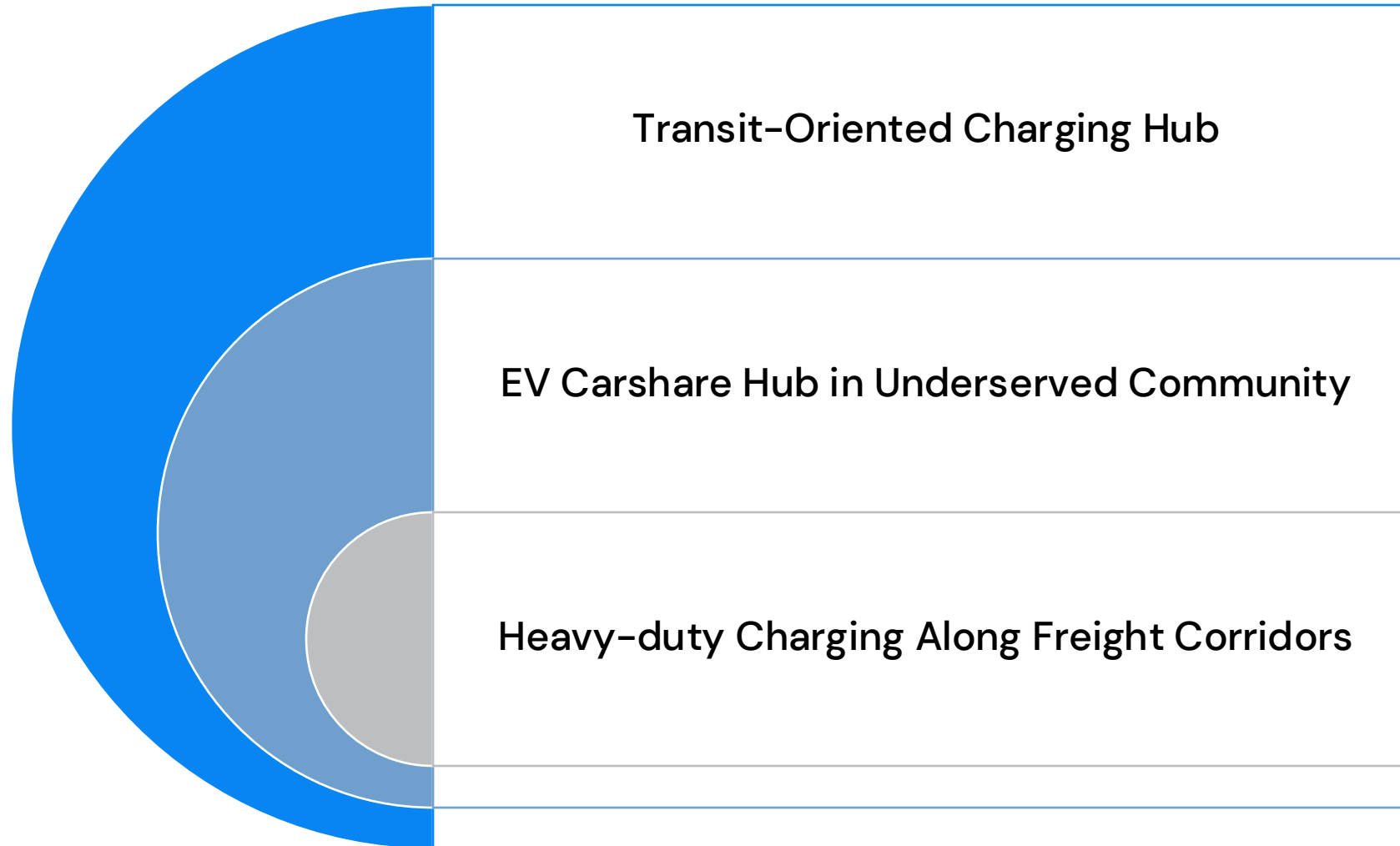
Moving from Planning to  
Actions

# Moving from Planning to Actions



# Concepts of Pilot Projects

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# Pilot Concepts in Detail

## Transit-Oriented Charging Hub

- **Concept:** Combine EV and transit use to support clean commuting. Shared hubs with fast chargers for buses and cars; optional solar and storage.
- **Users:** EV commuters, visitors and local transit fleets.



## EV Carshare Hub in Underserved Community

- **Concept:** Provide affordable EV access near multifamily properties and transit stops. App-based EV carshare, 2–3 vehicles per hub.
- **Equity Focus:** Reduced pricing for income-qualified residents.



## Heavy-duty Charging Along Freight Corridors

- **Concept:** Support clean goods movement along I-80. Pilot high-power chargers for drayage and regional trucks.
- **Users:** Freight haulers between Reno and the Bay Area.

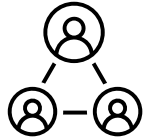
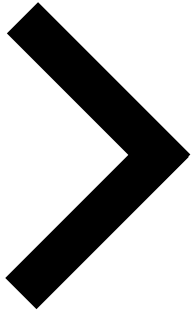




Next Steps

# What's Coming Next?

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Continue public engagement  
(Fall 2025/Early 2026)

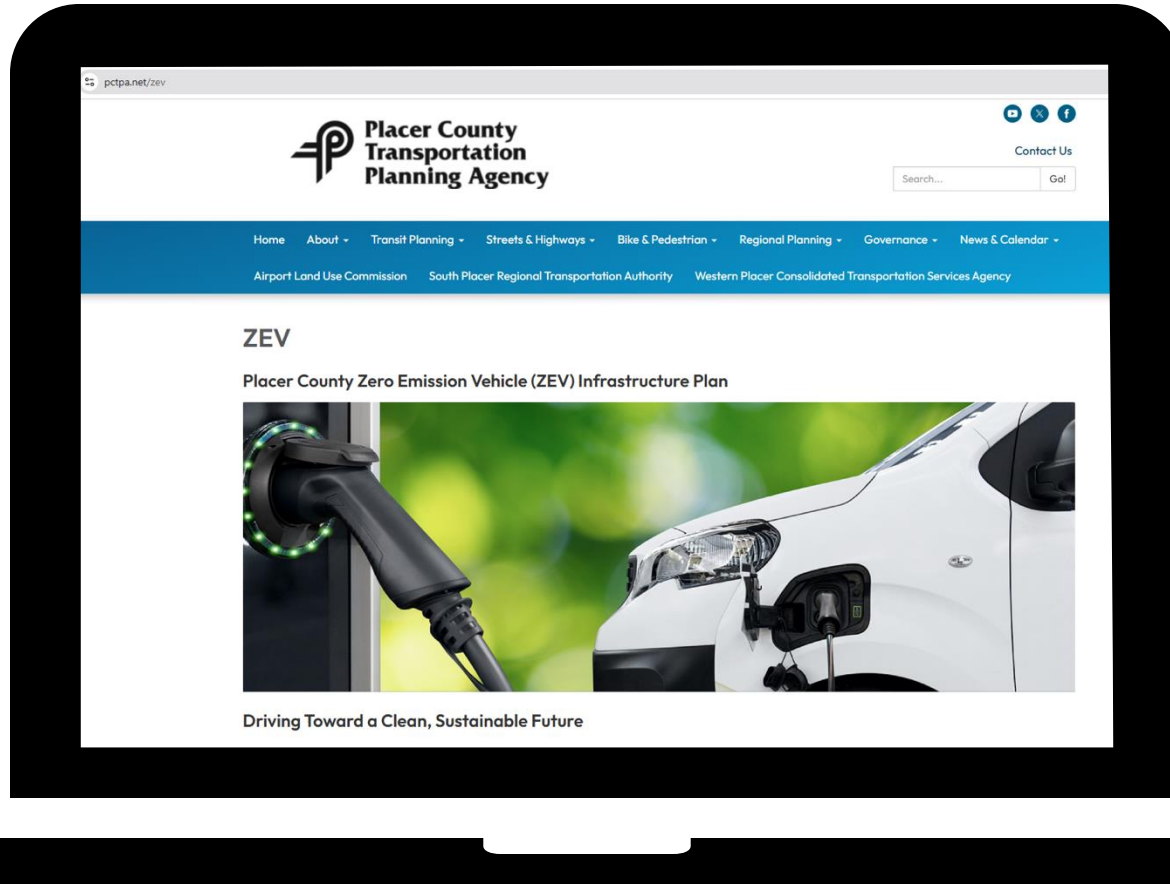


Refine high priority sites and pilot projects  
(Fall 2025)



Develop Countywide ZEV infrastructure plan  
(January–March 2026)

# Project Website



<https://www.pctpa.net/zev>



**Open Discussion and Q&A**

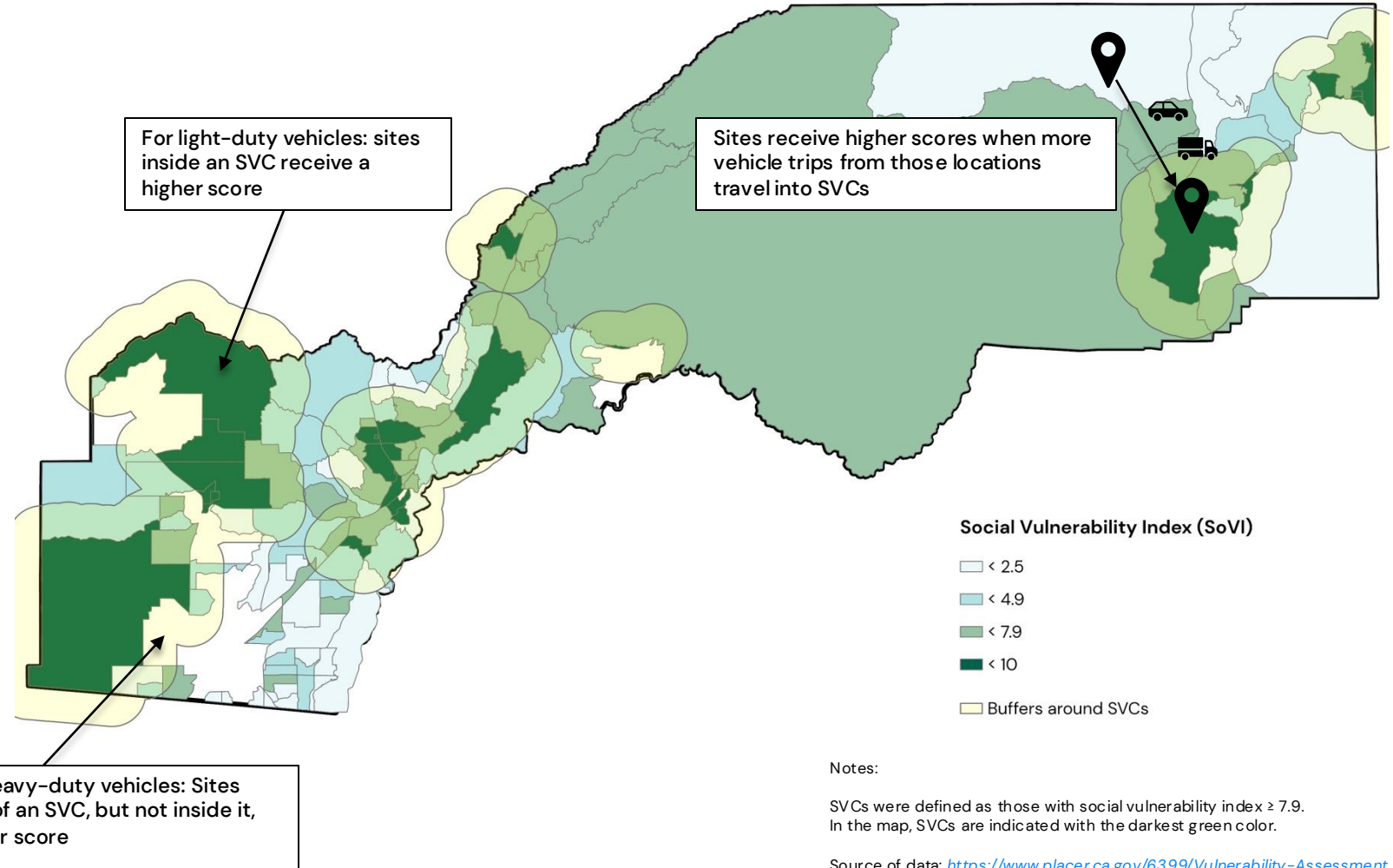
# Thank you!



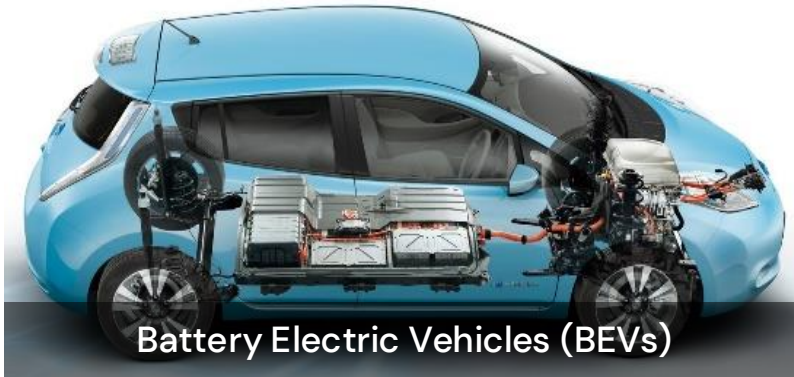
# Integrating Equity

□ A socially vulnerable community (SVC) is one where residents face greater challenges in coping with environmental, economic, or health-related stresses due to factors like income, age, disability, housing, education, employment, or language barriers. A higher index means greater vulnerability.

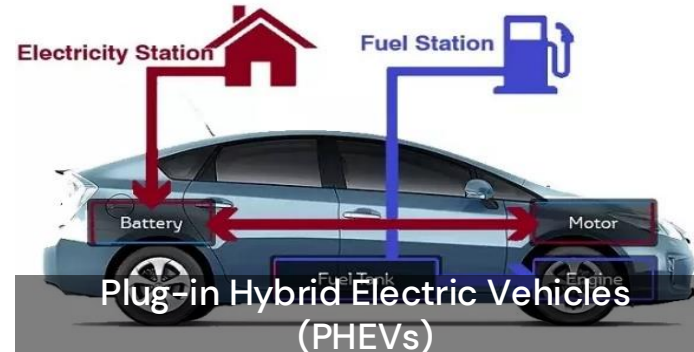
- How close is the site to an SVC?
- Will the placement of the site result in higher proportion of ZEVs in SVCs?



# What are different types of Zero Emission Vehicles (ZEVs)?



- Powered solely by electricity stored in batteries
- Charged via plug-in at home or public chargers
- Zero tailpipe emissions
- Lower operating and maintenance costs
- Range typically 150–300+ miles per charge



- Combines electric motor with gasoline engine
- Can drive short distances (20–50 miles) on battery alone
- Switches to gas when battery is depleted
- Reduced fuel use and emissions
- Recharged via plug or regenerative braking



- Powered by hydrogen fuel cells generating electricity
- Emits only water vapor
- Refuels in 3–5 minutes at hydrogen stations
- Longer driving range (300–400+ miles)
- Ideal for larger vehicles or longer routes