KERN ELECTRIC VEHICLE CHARGING STATION BLUEPRINT: 2025 UPDATE

FEBRUARY 2026

SUBMITTED TO:

KERN COUNCIL OF GOVERNMENTS

Kern Council of Governments

DKS

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EXECUTIVE SUMMARY

Kern County stands at a critical inflection point in its transportation electrification trajectory. Since the adoption of the 2019 Electric Vehicle Charging Station Blueprint, the county has achieved remarkable progress, meeting 100% of Scenario A deployment targets and 83% of Scenario B targets by 2025. More significantly, plug-in electric vehicle (PEV) market share has surged to 14.2% in Q3 2025 and 13.3% for the full year, positioning Kern County squarely within the 10-15% adoption tipping point range identified by technology diffusion research. This threshold marks the transition from linear to exponential growth dynamics, where self-reinforcing feedback loops, including learning curves, economies of scale, network effects, and peer influence accelerate adoption rates dramatically.

This Blueprint Update establishes revised infrastructure deployment targets reflecting both achieved progress and accelerated adoption trajectories driven by state policy mandates. Updated Scenario A calls for deployment of 4,426 charging spaces by 2035, while Updated Scenario B targets 12,745 charging spaces by 2035 to meet California Assembly Bill (AB) 2127 projected EV charging port installations needed. These targets align with the California Air Resources Board's (CARB) 2022 Scoping Plan for Achieving Carbon Neutrality and the Advanced Clean Cars II regulation mandating 100% zero-emission vehicle sales by 2035.

The strategic framework presented in this Blueprint addresses infrastructure deployment across four critical dimensions: geographic equity, infrastructure type prioritization, market-responsive investment, and integrated implementation. Community feedback collected over two years identified 'charging deserts' in Lamont/Arvin, Delano, Kern River Valley, and portions of east Bakersfield, with disadvantaged communities (DACs) disproportionately represented among underserved areas. Three priority investment profiles target deployment gaps most critical to supporting adoption acceleration: workplace and community Level 2 charging, DC fast charging, and multi-unit dwelling resident access through public infrastructure.

A performance-based incentive framework recommended in Implementation Goal 4 (EV Charger Affordability) harnesses exponential adoption dynamics by rewarding high-utilization deployments through expedited permitting, fee waivers, and priority grant access. This market-responsive approach creates reinforcing feedback loops where successful infrastructure attracts additional private investment while growing PEV density increases utilization of existing infrastructure. Recent legal action by the Coalition for Clean Air against noncompliant jurisdictions underscores the urgency of permitting streamlining, validating that regional permit standardization represents both a legal mandate and public health imperative.

The updated Goals and Strategies framework, organized across ongoing, near-term, mid-term, and long-term timelines, provides clear guidance for systematic progress through four core implementation goals: 1) GHG Emissions Reduction, 2) Transportation Infrastructure Readiness, 3) EV/EVCS Awareness and 4) Increased Adoption, and EVCS Affordability. Comprehensive performance metrics enable tracking progress against targets while adapting strategies based on demonstrated outcomes. Unprecedented access to federal funding (e.g. NEVI program providing 80% cost share, CFI grants) and state incentives (e.g. CALeVIP 2.0, Communities in Charge, Fast Charge California) creates optimal conditions for aggressive infrastructure deployment with minimal net public investment through strategic layering of funding sources.

Economic theory on technology tipping points, validated by empirical evidence from 31+ countries crossing the 5% EV adoption threshold, demonstrates that once critical mass is achieved, adoption accelerates through self-reinforcing mechanisms. Kern County's position exceeding the 10-15% adoption threshold documented in Rogers' Diffusion of Innovations theory (described on page 45) indicates that multiple reinforcing feedback loops are now active. Meeting AB 2127's 12,745 charging space target by 2035 therefore represents not merely an aspirational goal but a necessary infrastructure baseline to avoid supply constraints that could impede the market transformation already underway.

The critical insight emerging from this Blueprint Update is that the fundamental question has shifted from whether Kern County will transition to electrified transportation to how rapidly this transition will occur and whether infrastructure deployment will enable or constrain adoption. Linear infrastructure investment will prove inadequate to match exponential EV demand growth; EV charging station (EVCS) deployment must accelerate proportionally to anticipated adoption curves, with investment intensity increasing over the near-term (2026-2028) and mid-term (2029-2032) periods as the county transitions through the *Early Majority* adoption phase.

Strategic infrastructure investment positions Kern County to capture the economic, environmental, and social benefits of transportation electrification while ensuring equitable access across diverse communities. With comprehensive analysis, data-driven targets, community-validated priorities, and an actionable implementation framework supported by federal and state funding opportunities, Kern County is well-positioned to accelerate its transition to sustainable, equitable, and economically beneficial transportation electrification over the next decade.

1. INTRODUCTION

The Kern Council of Governments (Kern COG), DKS Associates (DKS), and Frontier Energy (FE) were awarded a California Energy Commission (CEC) Electric Vehicle (EV) grant to update the Kern EV Charging Station Blueprint (Blueprint) created in 2019. The original Blueprint established a pathway for Kern County to achieve greenhouse gas (GHG) emission reduction goals outlined in its Sustainable Communities Strategy through accelerated transportation electrification, identifying high-impact projects and community-specific implementation strategies. This Blueprint Update reflects substantial progress since 2019 and incorporates revised state policy objectives, including California's 2022 Scoping Plan for Achieving Carbon Neutrality and the Advanced Clean Cars II regulation mandating 100% zero-emission vehicle (ZEV) sales by 2035.

2019 BLUEPRINT PROJECT GOALS

The original Blueprint aimed to achieve two primary goals: (1) develop and deploy a comprehensive charging infrastructure strategy reflecting holistic regional transportation planning with specific consideration for disadvantaged communities, and (2) identify at least 12 shovel-ready charging sites positioned for funding, with one site in each of the Kern COG member jurisdictions (Cities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco, and Kern County).

2024-2025 UPDATE OBJECTIVES

This Blueprint Update builds on the original foundation while addressing accelerated market transformation and updated policy requirements. Specific project objectives include:

- Document the status of 2019 Blueprint implementation and conduct a comprehensive inventory of existing EV charging stations (EVCS) in Kern County
- Examine and update EVCS deployment gaps by location throughout the county
- Revisit and revise implementation goals and strategies to establish a five-year EV charging deployment plan for light-duty vehicles in Kern County communities
- Identify potential grants, rebates, and funding opportunities from local, state, and federal sources, as well as utilities and air quality management districts, and recommend strategies for leveraging multiple funding streams
- Establish a process for continuous biannual (six-month) reporting of Blueprint implementation status and progress toward deployment targets

BLUEPRINT STRUCTURE

This Blueprint is organized into six sections providing comprehensive analysis and actionable guidance for EVCS deployment in Kern County:

SECTION	DESCRIPTION
SECTION I. INTRODUCTION	Describes the updated project goals, outlines the document structure, and acknowledges regional contributors to Blueprint development, update, and deployment.
SECTION II. EV CHARGING PRIMER	Provides technical details on EV charging equipment, charging speeds, power levels (Level 1, Level 2, DC Fast Charging), and infrastructure deployment considerations.
SECTION III. EXISTING CONDITIONS	Analyzes the current state of EVCS in Kern County, including market adoption trends, PEV sales projections, economic drivers for growth, and identified barriers to infrastructure expansion.
SECTION IV. EVCS SITING & GAPS ANALYSIS	Updates the inventory of high-impact project sites suitable for EVCS investment and identifies geographic and infrastructure gaps requiring targeted deployment.
SECTION V. IMPLEMENTATION PLAN	Presents updated implementation strategies, responsible parties, performance metrics, and deployment timelines necessary to achieve Blueprint goals.
SECTION VI. CONCLUSIONS	Synthesizes key findings and provides recommendations for Kern County stakeholders to advance Blueprint implementation.

TERMINOLOGY AND NOMENCLATURE CONVENTIONS

This Blueprint employs standardized terminology to ensure consistency throughout the document. The acronym PEV (Plug-in Electric Vehicle) denotes all electric vehicles capable of accepting external electrical charge, encompassing both battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). The term ZEV (Zero Emission Vehicle) appears throughout this document, particularly in citations of research literature and official data sources. For practical purposes, PEV and ZEV should be understood as interchangeable descriptors of the vehicle technologies central to this Blueprint.

Technically, the ZEV category includes fuel cell electric vehicles (FCEVs); however, their current penetration in the light-duty vehicle segment remains negligible and does not materially affect this Blueprint's focus. Since light-duty FCEV infrastructure remains extremely limited (and stagnating[1]),

[1] As of July 15, 2024, California's hydrogen fueling network has declined to 62 stations (4 fewer than last year) and is facing supply and reliability challenges according to the California Air Resources Board's annual report: https://ww2.arb.ca.gov/sites/default/files/2024-12/AB-126-Report-2024-Final.pdf

this analysis concentrates specifically on charging infrastructure for battery electric vehicles (BEVs and PHEVs).

For charging infrastructure terminology, this Blueprint uses EVCS (Electric Vehicle Charging Station) as the primary descriptor. The industry alternatively employs EVSE (Electric Vehicle Supply Equipment) and EVI (Electric Vehicle Infrastructure) to describe comparable systems. These terms are used interchangeably in industry literature and should be understood as synonymous.

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2. EV CHARGING PRIMER

Adoption of plug-in electric vehicles (PEVs) is increasing both statewide and within Kern County. As more drivers switch to EVs, demand will rise for EVCS. Following is a high-level overview of the types and uses of EVCS, potential innovative charging technologies and strategies, and a summary of costs.

EVCS TECHNOLOGIES

EVCS are typically classified by three "levels" of power delivery: Level 1, Level 2 and direct current (DC) fast charging. The primary distinction between these levels is the input voltage: Level 1 uses 110/120 volts, Level 2 uses 208/240 volts, and DC fast chargers (DCFC) use between 208 and 480 volts and usually require three-phase power inputs. A wide range of manufacturers produce each type of EVCS, with a variety of products with varying prices, applications and functionality. Figure 1 illustrates a general overview of the three general charging speeds, showing the differing characteristics of each of the charging levels.

LEVEL 1	LEVEL 2	DCFC
• Standand current via electrical outlet • 8-12 hours to fully charge, although larger batteries could take 1-2 days • Inside or outside locations • Standard outlets and standard J1772 coupler • In-vehicle power conversion	• Requires installation of charging equipment and may require utility upgrades • 4-8 hours to fully charge • Inside or outside locations • Public use, often requiring payment and provider network interfaces	• Requires installation of charging equipment and may require utility upgrades • 80% charge in as little as 30 minutes • Relatively high-cost compared to Level 2 chargers • Requires utility upgrades and dedicated circuits

FIGURE 1: KEY DIFFERENCES BETWEEN LEVEL 1, LEVEL 2, AND DCFC CHARACTERISTICS

LEVEL 1 CHARGING

Level 1 charging is available wherever there is a 110V/120V outlet. EVs are typically sold with a Level 1 charging cable. Level 1 chargers generally deliver a continuous current of 12 to 16 amps (1.4 to 1.9 kW at 120 Volts). At these levels, a Level 1 charger can deliver between 3 and 6 miles of range per hour of charge time. These charging rates may be acceptable for drivers who drive less than 30-40 miles per day and can charge overnight. Level 1 charging is already available in multifamily dwellings that include private garages, since most if not all private garages have at least one common outlet. Such outlets are usually sharing their circuit with other outlets or small loads, whereas a dedicated circuit (one outlet/load per breaker) is significantly safer for EV charging at any level.

LEVEL 2 CHARGING

Level 2 chargers offer higher power output than Level 1 chargers and have additional functionality that is not typically available with Level 1 chargers. Level 2 chargers may be designed for indoor or outdoor installations (e.g., NEMA 3R, NEMA 6P, NEMA 4x rated) and typically deliver between 16 and 40 Amps of current or 3.5 to 9.6 kW of power output, which can deliver between 14 and 35 miles of range per hour. The most current that an AC Level 2 charger can throughput is 80 Amps (19.2 kW at 240 Volts). While AC Level 2 chargers can be installed on a 3-phase electrical panel, they accept only single-phase power and thus their power output is limited to the product of their voltage and amperage.

Level 2 chargers can be categorized into non-networked units (often called "dumb" chargers) and networked units (sometimes described as "smart" chargers).

Non-networked (Dumb) Level 2 Chargers

Non-networked Level 2 EV charging stations perform essentially the same basic function as Level 1 units. However, if you must obtain an electrical permit in order to install a dedicated circuit, it is generally more cost-effective to install a 240-volt circuit for Level 2 charging rather than limit yourself to 120 volts. Non-networked chargers typically have a lower upfront cost than their networked (or "smart") counterparts, yet they usually lack features such as usage monitoring, remote management, or load-sharing, and in many cases do not qualify for grants or incentives that mandate network connectivity.

Networked (Smart) Chargers

Networked chargers are typically deployed in workplace and public settings, especially where payment is required, and at shared multi-unit dwellings (MUDs) chargers where electricity costs are shared among multiple tenants. These "smart" systems offer features such as remote access via Wi-Fi or cellular connectivity, multi-payment support (credit cards, apps, RFID), and dynamic load balancing across multiple chargers. Networked EV charging stations are particularly well suited to property owners or operators who need to monitor energy consumption across multiple units, support dynamic access by multiple drivers, collect payment for usage, or address constrained electrical capacity with load management. Some "smart" chargers are designed to participate in demand-response programs, allowing charging windows to be restricted to predefined periods and optimized for time-of-use (TOU) rates, thereby reducing costs by shifting charging to the lowest-cost hours. While the initial investment and ongoing subscription fees for "smart" chargers are higher than for "dumb" units, the enhanced access to detailed usage data, advanced management controls, and full operational visibility may justify the added cost for many operators.

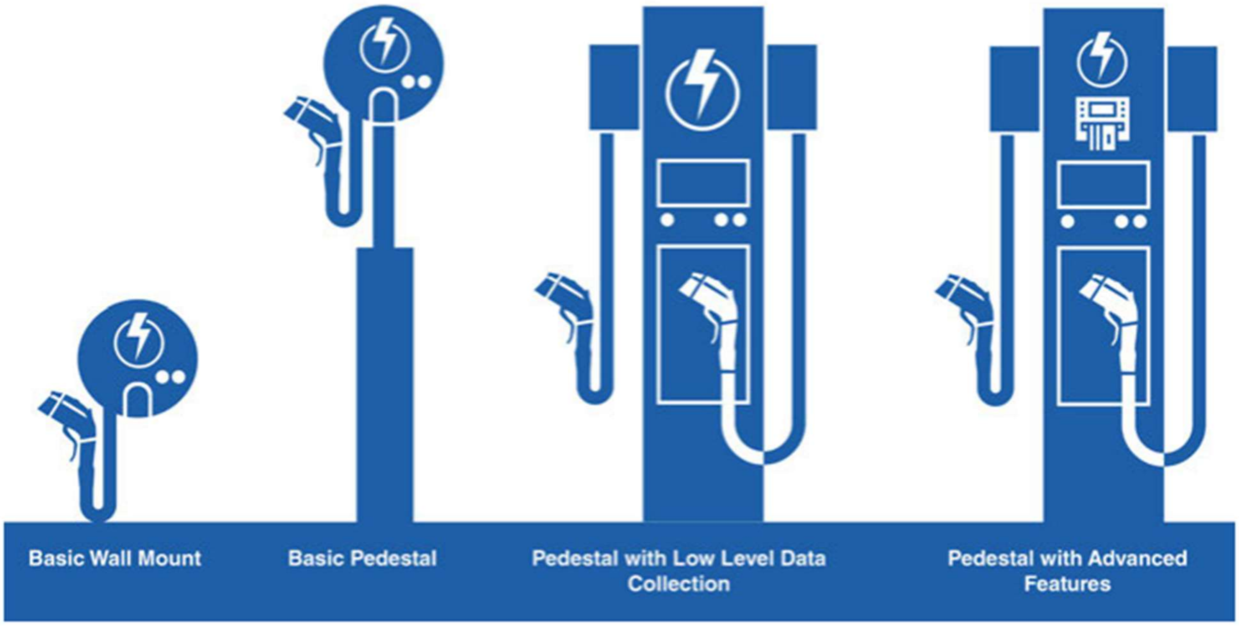

FIGURE 2: TYPES OF LEVEL 2 CHARGING STATIONS

DC FAST CHARGING AND EVCS CAPABILITIES

DC Fast Charging (DCFC) represents the highest-powered category of EV charging infrastructure currently deployed. As of November 2025, the United States has over 230,000 public charging ports available, with more than 65,000 of these comprising DCFCs deployed across approximately 14,500 locations nationwide. DCFC stations are typically deployed along major travel corridors to enable long-distance travel and in urban and suburban environments to serve drivers lacking home charging access. These chargers are optimally suited for locations where drivers spend 30 minutes to one hour, such as quick-service restaurants, retail shopping centers, and travel corridor facilities.

DCFC stations typically operate on high amperage (200 to 500 Amps) three-phase 480V electrical input and can deliver a full charge to most PEVs in less than 30 minutes. However, the charging rate varies throughout the charging session due to battery thermal management. Peak charging power occurs when the battery is fully depleted; as the battery becomes charged, the charging rate progressively slows in a phenomenon known as "tapering." This tapering effect protects battery longevity by managing thermal stress during the later charging stages. Most DCFC installations output 150-350 kW of power, with higher-power chargers (350+ kW) increasingly deployed across the network. However, not all PEVs can accept maximum power delivery. Each PEV has a maximum acceptance rate that limits the charging power it can receive, which may be substantially lower than the DCFC’s output capacity. Infrastructure planners should account for this variability when evaluating charger performance and user experience expectations.

The DCFC industry is currently experiencing rapid standardization. Multiple connector standards have competed in the market (CHAdeMO, Combined Charging System (CCS), and North American

Charging Standard (NACS, previously known as the Tesla standard) though the industry is converging toward NACS as the dominant standard. In contrast, Level 1 and Level 2 charging employ a single standardized connector (SAE J1772), simplifying compatibility across vehicle and charger manufacturers. These technological specifications and standards continue to evolve as manufacturers invest heavily in EVCS expansion nationwide.

EVCS HARDWARE, SOFTWARE, AND NETWORKING CAPABILITIES

EVCS hardware and software architecture varies substantially based on deployment requirements and operational needs. Networked EVCS integrate sophisticated software packages that enable access controls, usage tracking, customer billing, demand management, demand response capabilities, and load balancing functions. These networked systems provide real-time data to operators and network management systems, enabling optimization of grid impacts and revenue management. Conversely, non-networked EVCS use simplified designs with functionality limited to basic start/stop mechanisms and status indicators. The choice between networked and non-networked EVCS depends on operator requirements, funding availability, and integration with broader grid management strategies. Table 1 outlines key hardware and software specifications and capabilities that should be evaluated when developing EVCS deployment strategies.

TABLE 1: TYPICAL HARDWARE, SOFTWARE, AND NETWORKING CAPABILITY REQUIREMENTS OF EVCS

TYPE	LEVEL 1	LEVEL 2	DCFC
HARDWARE	• Supply an output current of at least 12 amps per port minimum at 110/120 VAC • Charge connector compliant in SAE J1772 • Operating temperature range of 0 to 122 F • User interface - start/stop mechanism, status indicators	• Commercial-grade UL Listed • Supply an output current of at least 16 amps per port minimum at 208/240 volts • Charge connector compliant in SAE J1772 • User interface - start/stop mechanism, status indicators • Operating temperature range of 0 to 122 F • Network ready – able to communicate with a network management system (NMS) • Compliant with Americans with Disabilities Act (ADA)	• NACS connectors (transitioning from CHAdeMO and CCS connectors) • Commercial-grade UL Listed • Supply an output current of up to 400 amps per port minimum at 200-600 VDC • ADA compliant
SOFTWARE	• Operate and fault detect/diagnose (networked only) • Power Surge Protection	• Control, operate, communicate, diagnose and capture data (networked only) • Power surge protection • Track usage data, billing customers and manage electrical loads (networked only) • Meter/display of energy consumption – 3% accuracy or better (networked only) • Load sharing capable • ADA Compliant	• Control, operate, communicate, diagnose and capture data • Ability to “remote start” • Point-of-sale methods: pay-per-use, subscriptions, RFID or smart cards • Track usage, collect data, billing customers and managing electrical loads • Meter/display of energy consumption • Load sharing capable

CHARGING STATION ACCESSIBILITY AND USE CLASSIFICATION

EVCS are classified based on accessibility rather than ownership. EVCS intended for public use (available to the general public regardless of where they are physically located) are classified as public charging infrastructure. This includes chargers installed in private facilities such as shopping centers, restaurants, or office parks, provided they are accessible to customers or visitors. Conversely, chargers installed at public facilities but restricted to specific users (such as employee-only parking areas) are considered private charging. This distinction is critical for compliance and planning purposes, as it determines EVCS features, regulation and funding eligibility.

STATE STREAMLINED PERMITTING REQUIREMENTS

The State of California has established comprehensive frameworks to expedite and standardize EVCS permitting across jurisdictions. Assembly Bill 1236 (enacted 2015, amended by AB 970 in 2021) requires all California cities and counties to develop expedited and streamlined permitting processes for EVCS installations. Recognizing that fragmented local permitting requirements create deployment barriers, the state has set specific requirements that all jurisdictions must implement:

- Streamlined review scope: Permit review limited to health and safety impacts; EVCS cannot be subject to local zoning restrictions or conditional use permits
- Complete application standards: Jurisdictions must provide online checklists clearly defining all required documentation; applicants receive only one comprehensive deficiency notice listing all missing items
- Binding review timelines: AB 970 established specific permit review deadlines (typically 15-30 days depending on project complexity), with adherence monitored by authorities having jurisdiction
- Non-discrimination requirement: Local governments cannot require association approval as a condition of permitting for EVCS installations, establishing the "right to charge"
- Streamlined residential permits: EVCS for single-family residences, duplexes, and townhomes qualify for expedited processing with minimal documentation requirements

The Governor's Office of Business and Economic Development (GO-Biz) publishes the Electric Vehicle Charging Station Permitting Guidebook providing model ordinances, checklists, and best practices for jurisdictions implementing state requirements. As of March 2025, the California Attorney General issued a Legal Alert (OAG-2025-01) reiterating these requirements and clarifying that EVCS permitting must follow state preemption standards, ensuring consistent application across jurisdictions.[2]

Despite some standardization and a general adherence to national/state electric code, local permitting still varies in cost and process. For example, some cities still require in-person applications while others are now exclusively done online. Permit fees for the same scope of work

[2] https://business.ca.gov/industries/zero-emission-vehicles/plug-in-readiness/

can be drastically more or less expensive across jurisdictions. Moreover, there is always a degree of subjective qualitative judgement imposed by inspectors.

Recent legal action by the Coalition for Clean Air (November 2025) highlights the stakes of delayed permitting reform. The organization's lawsuits against noncompliant jurisdictions cite approximately 110 California cities and counties that have failed to adopt streamlined EV charging station permitting procedures mandated by state law, with compliance deadlines long past (September 30, 2017). These legal proceedings demonstrate that permitting fragmentation is not merely an efficiency issue, but that it also represents a public health crisis. The Coalition's argument that permitting delays directly translate to delayed air quality benefits and increased pollution-related mortality parallels the environmental justice imperative driving this Blueprint's geographic equity focus. Kern County's commitment to Strategy 8 (Streamlined Permitting & Local EVCS Ordinance Development) positions the county as a proactive leader in compliance and public health protection, demonstrating that regional coordination prevents legal liability while accelerating the infrastructure deployment necessary to protect vulnerable communities from continued pollution exposure.

ADA/CALIFORNIA BUILDING CODE COMPLIANCE

Under the Americans with Disabilities Act (ADA) and the California Building Code (CBC), a portion of all chargers at multifamily buildings and nonresidential developments are required to be accessible to individuals with disabilities (“ADA accessible”). It is important to take these requirements into account when planning to install chargers because they impact the spatial needs, and potentially the cost, of EVCS installations. The first new charger constructed is required to be ADA accessible, requiring a significantly wider space and more space for adjacent access aisles than a standard parking space. Property owners may have to sacrifice multiple standard parking spaces to build the first charging space (Figure 3). When EVCS are installed in public parking garages and lots, it is important to note that under CBC Chapter 11B, Divisions 2 and 8:

- Installing EVCS changes the use of the space from parking to charging.
- Depending on the number of EVCS to be installed, a certain number and type of accessible EV spaces needs to accompany the EVCS installation (see Table 2).
- Accessible spaces need to be on an accessible path of travel to the main entrance of the facility that the EVCS serves.

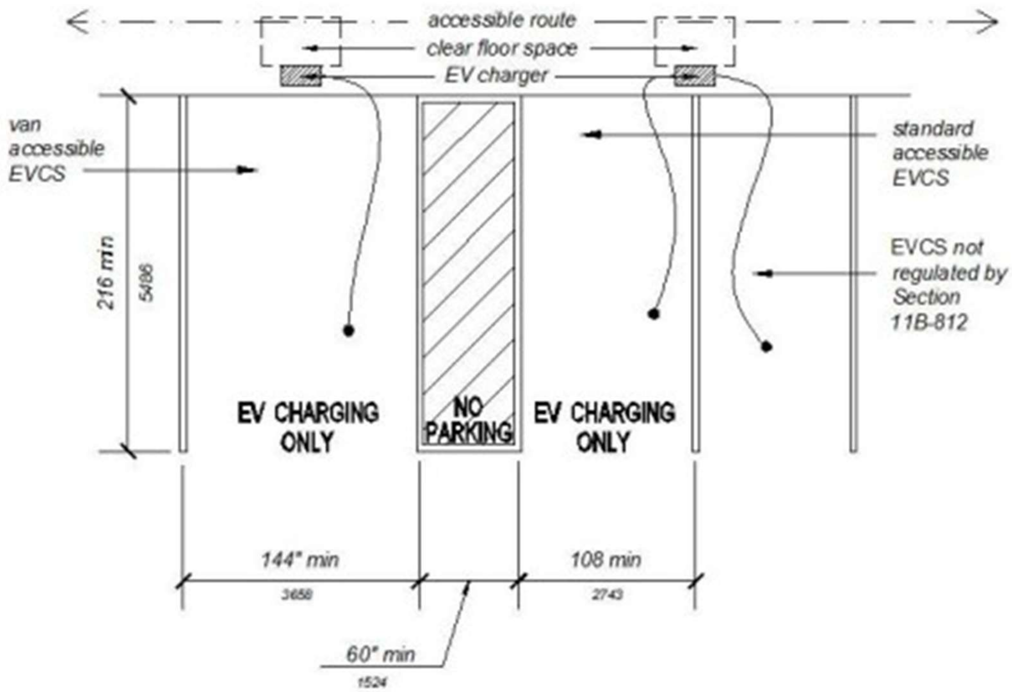

FIGURE 3: SAMPLE ADA ACCESSIBLE SPACE SITE PLAN AND SURFACE MARKINGS

Source: California Building Standards Commission, 2022 California Building Code Section 11B-812.9

ADA REQUIREMENTS FOR NEW PUBLIC CHARGER INSTALLATIONS

Per the latest (2022) California Building Code, Section 11B-228.3.2 stipulates that facilities providing publicly available chargers (including gated apartment complexes) must provide at least one accessible EV charging stall, as summarized in Table 2. The table below summarizes these requirements. Three design standards for ADA accessible parking spaces are as follows:

- Ambulatory parking spaces designed for people with disabilities who do not require wheelchairs but may use other mobility aids.
- Standard ADA accessible spaces designed for people who use wheelchairs but can operate vehicles.
- Van-accessible spaces for vehicles carrying people who use wheelchairs who cannot operate vehicles.

TABLE 2: MINIMUM NUMBER ACCESSIBLE STALLS PER PUBLIC EV CHARGING STATIONS

NUMBER OF EVCS (PORTS)	VAN ACCESSIBLE	STANDARD ACCESSIBLE	AMBULATORY
1 TO 4	1	0	0
5 TO 25	1	1	0
26 TO 50	1	1	1
51 TO 75	1	2	2
76 TO 100	1	3	3
101 AND OVER	See code	See code	See code

Source: California Building Code 2022 (latest edition as of November 28, 2025)

THE EVCS DECISION PROCESS

There are a wide range of benefits and costs a potential site host should take into consideration before deciding to install a charging station. Figure 4 illustrates some representative questions, however, each individual installation is unique, and may require additional considerations. Some questions (e.g. whether to implement a usage fee) should be considered from both the station host's viewpoint and the user's. For a more comprehensive list of considerations, please see the U.S. Department of Energy's Public Electric Vehicle Charging Infrastructure Playbook.[3]

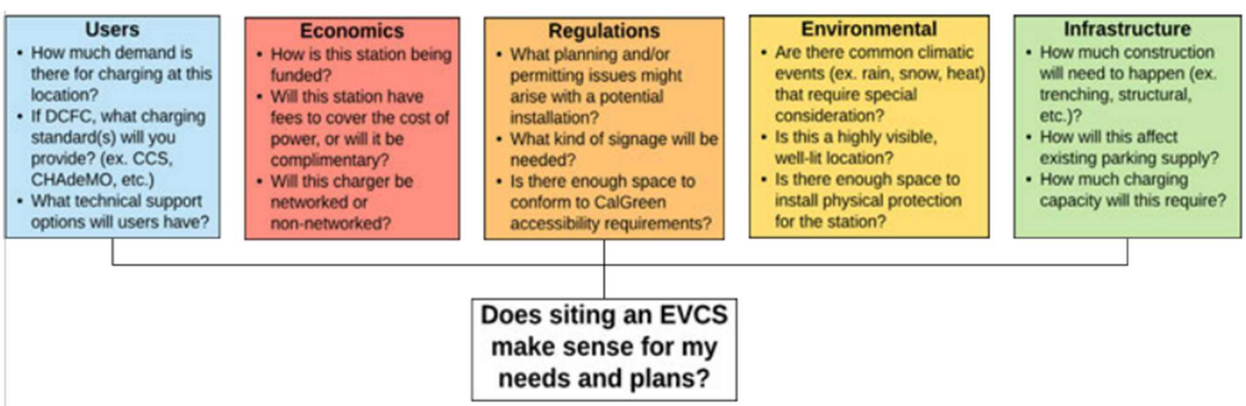

FIGURE 4: COMMON CONSIDERATIONS FOR EVCS PLANNING AND SITING

Source: Adapted from the US Dept. of Energy Plug-In Electric Vehicle Handbook for Public Charging Station Hosts

[33] https://driveelectric.gov/ev-infrastructure-playbook

DEMAND ASSESSMENT

The first step a decision-maker should take is to determine the overall need/demand for EV charging. While there are multiple ways of doing this, a common methodology is to distribute a survey to relevant stakeholders/potential station users. This methodology is easily utilized in workplaces, multi-unit dwellings (MUDs), and commercial/ retail locations where the building/project owner has direct communication with the potential station users; public agencies can also reach their constituencies through established communication outlets. When applicable, administering a survey should have a goal of determining the exact amount of power needed to supply charging for EV drivers' needs.

CAPACITY ASSESSMENT

Once charging demand is known, the electrical capacity calculations should be run to determine how much EV charging is required. To do this most effectively, a project owner should consult their facilities or maintenance personnel who are familiar with the building/property's electrical system. Load calculations following the California Electrical Code, Article 220 can identify the maximum expected load, with appropriate safety factors. An alternative is to do a load study to determine the actual maximum load on a panel or service. To determine whether the electrical capacity is adequate, the following items must be estimated:

1. The number of EV drivers on the property (current and forecasted)
2. The daily commute distance for each driver

In general, the project owner should plan on one charging port per driver. The daily commute can determine the minimal type of charging needed. If an EV driver drives fewer than 25 miles daily, Level 1 charging can suffice. Therefore, Level 1 outlets could be utilized if available for anyone who drives fewer than 25 miles/day. If Level 1 outlets do not exist, Level 2 charging should be installed. However, it should be noted that the cost of Level 1 charging is not dramatically less than the cost of Level 2 EVCS in many cases.

EVCS COSTS

INSTALLATION COSTS OF EVCS

The cost to install EVCS is variable and dependent on several factors, including but not limited to the following:

- Electrical contractor's hourly rate (varies by region)
- Distance of circuit/conduit run from EVCS to electrical panel
- Potential trenching across hardscape for conduit run
- Potential service panel upgrade/subpanel installation
- Number of chargers being installed on the site

Table 3, below, outlines the range of costs for the first EVCS port (plug) installed at a given site. Table 4 outlines some specific installation variables that are incorporated into the figures shown in

Table 3; the construction and excavation portions, which can vary significantly between installations.

TABLE 3: APPROXIMATE COSTS FOR NON-RESIDENTIAL SINGLE-PORT EVCS

COST ELEMENT	LEVEL 1 – LOW	LEVEL 1 – HIGH	LEVEL 2 – LOW	LEVEL 2 – HIGH	DC FAST CHARGE – LOW	DC FAST CHARGE – HIGH
HARDWARE	$300	$1,500	$600	$12,000	$55,000	$345,000
PERMITTING	$100	$500	$500	$5,000	$1,500	$7,500
INSTALLATION	$0	$3,000	$500	$9,000	$38,000	$242,000
TOTAL	**$400**	**$5,000**	**$1,600**	**$26,000**	**$94,500**	**$597,000**

TABLE 4: SPECIFIC INSTALLATION COST CONSIDERATIONS

COST ELEMENT	COST
CONDUIT	$.50–$15/ft.
TRENCHING	$25–$100/ft.
CONCRETE PATCH	$4–$11/sq. ft.
ASPHALT PATCH	$2–$7/sq. ft.

CURBSIDE EVCS

Placing EVCS along curbsides in the public right-of-way has unique challenges and considerations that are not present in other EVCS installation scenarios. Depending on the location of the EVCS there may be competing current or future uses for the curb space. Furthermore, the EVCS might need to be wired into a nearby building panel or be powered from a nearby utility transformer. Since ownership and operation of multiple EVCS can be expensive and time-consuming, it is an important consideration to make before installing an EVCS. While there are unique challenges and considerations for curbside EVCS, it can provide a substantial benefit to residents. Curbside EVCS have high visibility, and their availability might help a resident decide to purchase or lease an EV. Furthermore, curbside EVCS can be an effective deployment strategy to support residents without home charging. Charging integrated into streetlight poles and utilizing existing streetlight circuits can potentially be an effective option.

MUNICIPAL CHALLENGES WITH CURBSIDE EVCS

Implementing vehicle charging at the curb (in the public right-of-way) has the potential to increase access to charging for residents who do not have access to off-street parking or charging. However, local governments have been hesitant to enact curbside charging programs because they lacked the authority to assess parking fines or towing vehicles illegally parked in spaces on public streets designated for charging EVs. California Assembly Bill 1452, chaptered in October 2017, gives local governments this authority. Municipalities also need to consider changes in curbside parking payments systems and additional user fees, as well as data management, capital costs for subscription services if units are networked, public works operations and maintenance protocol, and the addition/creation of new signage and engineering standards for city staff/code.

OPERATION & MAINTENANCE COSTS

There are several ongoing operational and maintenance (O&M) costs associated with EVCS: the cost of electricity, any network subscription fees, and station maintenance costs. Each of these costs can be reduced or recouped in several ways.

COST-SAVING OPPORTUNITIES

Demand Response/Time-of-Use Rates

Both PG&E and SCE rate plans are based on time-of-use (TOU), which refer to rate plans with variable costs for electricity that are dependent on the time of day in which the electricity us used. TOU rates typically have three different time periods: On-Peak, where the price of electricity is highest, and Off-Peak, when the price of electricity is lower, and Super Off-Peak, when the price of electricity is lowest. Customers can utilize TOU programs paired with scheduling EV charging during off-peak periods to lower their cost of charging. Charging during Off-Peak or Super Off-Peak hours will be much less expensive that if charging during On-Peak periods. Both utilities offer TOU rates specifically for EVCS , but these rates typically are only available on meters dedicated to EV charging only.

Demand response refers to a dynamic communication network between the electricity grid and buildings that draw power from it, controlling the amount of power being delivered to buildings, usually based on changes in electricity prices over a 24-hour period. This is a way of shifting electricity demand from end-users to off-peak times and away from peak-demand hours, which are significantly more expensive than off-peak times.

COST RECOVERY FEES

EVCS BUSINESS MODELS AND PRICING STRATEGIES

Charging Station Operations and Service Providers

Charging station owners typically contract with Electric Vehicle Service Providers (EVSPs) or third-party Charge Point Operators (CPOs) who handle installation, day-to-day operations, maintenance, and revenue collection. EVSPs function as end-to-end service providers, managing network operations, driver interfaces, billing systems, and ensuring 24/7 charger availability and reliability. This operational model allows property owners to deploy charging infrastructure without directly managing technical or business operations, while EVSPs generate revenue through pricing mechanisms they establish in consultation with property owners.

The business objectives of property owners and EVSPs can create strategic tensions. Property owners seek to recoup installation, maintenance, and operational costs while maximizing charger utilization by encouraging rapid turnover of charging vehicles. Conversely, affordable charging rates, particularly pricing that makes EV electricity costs lower than equivalent gasoline costs on a per-mile basis, create incentives for EV purchase and adoption. At retail and commercial locations, competitive pricing strategies can also drive customer traffic and sales. These competing objectives require careful pricing design that balances cost recovery, market competitiveness, and adoption incentives.

CONTEMPORARY PRICING MODELS

Modern EVCS deployments employ diverse pricing strategies tailored to specific use cases and business objectives. Current industry practice identifies four primary models:

1. **Fixed Connection Fee:** A flat fee is assessed for each charging connection, regardless of energy consumption or charging duration. This model is commonly used at workplaces, parking facilities, or locations where long dwell times are expected (such as employee parking or all-day shopping centers). The fixed fee may be incorporated into parking costs or employer-sponsored benefits, simplifying administration and providing predictable revenue.
2. **Time-Based Pricing:** Fees are charged per hour or other defined time intervals for Level 2 charging, and on a per-minute basis for DC Fast Charging. Time-based pricing encourages rapid charger turnover and is ideal for locations where high utilization and vehicle throughput are priorities (such as retail centers or public facilities). This model incentivizes users to disconnect once charging is adequate rather than allowing vehicles to occupy chargers after charging is complete.
3. **Energy-Based (Per-kWh) Pricing:** Fees are calculated based on the actual electricity delivered, measured in kilowatt-hours (kWh), with rates often including a multiplier to recover installation, maintenance, and operational costs. Energy-based pricing provides transparency and fairness to drivers, as charges directly correlate to electricity consumed. This model is increasingly preferred by regulators and market leaders as a fair and consistent pricing approach. Public charging rates typically range from $0.30-$0.60 per kWh at Level 2 chargers and $0.50-$0.80+ per kWh at DCFCs, compared to approximately $0.22-$0.25 per kWh for home charging in Kern County.
4. **Subscription and Membership Models:** Fixed monthly, quarterly, or annual subscription fees provide unlimited charging access or discounted rates through tiered membership programs. Subscription models build customer loyalty, provide stable revenue streams, and reduce per-session costs for frequent users. For example, major networks offer subscription tiers (such as EVgo's $6.99-$12.99 monthly plans) that provide percentage discounts on per-kWh or per-minute charges, with pay-as-you-go options available for non-subscribers. Commercial property operators (such as parking facilities) increasingly use subscription models to bundle EV charging with parking services, incentivizing regular customer engagement.

EMERGING PRICING STRATEGIES

The EVCS industry is evolving toward more sophisticated, demand-responsive pricing models:

- Dynamic pricing: Real-time rate adjustments based on grid demand, energy costs, and renewable energy availability, optimizing both operator revenue and grid stability
- Time-of-use pricing: Variable rates reflecting peak and off-peak electricity periods, encouraging charging during periods of lower grid stress and lower energy cost
- Tiered pricing: Different rates for different user segments (e.g., subscriber vs. non-subscriber, commercial fleet vs. personal vehicle) or geographic locations
- Session fees with variable charges: Base per-session charges combined with time or energy-based fees, balancing predictability with usage-based charging

General EV charging etiquette dictates that drivers unplug their vehicles when their battery is charged to their desired level, but it is not uncommon to find chargers plugged into vehicles that are finished charging. Idle fees incentivize drivers to move their vehicles and free up charging after their charge is complete. Low turnover at an EVCS can discourage usage, as drivers tend to choose charging locations with a higher likelihood of availability. Local governments looking to adopt a PEV charging fee may want to conduct a study to demonstrate the fee is necessary to cover costs and/or create a revenue-sharing agreement with private infrastructure operators.

INFRASTRUCTURE DEPLOYMENT STRATEGIES: SMART CHARGING AND USER EXPERIENCE OPTIMIZATION

DISTRIBUTED CHARGING ARCHITECTURE AND LOAD MANAGEMENT

Modern EVCS deployment strategies increasingly emphasize distributed charging approaches that maximize infrastructure accessibility while minimizing user burden. Rather than concentrating limited high-power chargers in constrained areas, deploying Level 2 chargers broadly across parking facilities, supported by intelligent load management systems, creates a fundamentally different user experience.

Smart charging networks employ dynamic power distribution algorithms that allocate available electrical capacity equitably across all connected vehicles based on multiple parameters: current state of charge, connection duration, user-defined departure times, and vehicle acceptance rates. This approach eliminates what might be termed "charge monitoring anxiety" the psychological burden of needing to remember to move one's vehicle immediately upon charge completion to avoid idle fees or blocking chargers for other users. When every parking space (or a high proportion of spaces) includes charging capability, drivers can park once and remain parked throughout their entire visit without concern for charger availability or turnover pressure.

This distributed model proves particularly effective at workplaces, multi-unit dwellings, and destination locations with extended dwell times (2-8 hours), where charging speed is less critical than charging availability and convenience. A parking lot equipped with numerous Level 2 chargers managed by intelligent load-sharing software can serve more vehicles per day than a smaller number of high-power chargers requiring active monitoring and vehicle movement.

CHARGING SPEED AND USER ENGAGEMENT REQUIREMENTS

The relationship between charging speed and required user attention fundamentally shapes appropriate infrastructure deployment. DCFCs, commonly delivering 150-350 kW and completing charging sessions in 15-30 minutes, inherently involve active user engagement. Drivers typically remain with their vehicles or return within short timeframes, analogous to conventional refueling stops or quick-service restaurant visits. These brief durations make it unlikely that users will forget to move their vehicles, reducing the practical concern about idle fees or blocked chargers.

Conversely, Level 2 charging at workplaces, shopping centers, or restaurants creates a temporal mismatch: charging may complete in 2-4 hours while the user's visit extends 6-8 hours. Without distributed charging infrastructure, this mismatch creates user anxiety about monitoring charging status and relocating vehicles mid-visit, potentially requiring drivers to interrupt meals, meetings, or shopping to move cars to avoid penalties. This burden represents a genuine adoption barrier, particularly for users accustomed to the simplicity of gasoline refueling.

ENFORCEMENT MECHANISMS AND OPERATIONAL STRATEGIES

California Vehicle Code Section 22511 empowers parking space owners to enforce posted regulations, including time limits and EV-only designations for charging spaces. However, effective enforcement requires clear signage specifying time limits, penalties, hours of restriction, and precise definitions. For example, the City of Sacramento posts a four-hour continuous charging limit in designated EV spaces, while Los Angeles has adopted municipal code provisions specifically addressing EV charging space enforcement.

Traditional enforcement through parking agents or citations proves resource-intensive and often impractical for most municipalities and private property owners. Technology-enabled enforcement strategies offer more scalable alternatives:

- **Automated Idle Fee Structures:** Network-connected chargers can automatically implement escalating idle fees once charging completes, creating financial incentives for users to move vehicles without requiring active enforcement personnel. For example, a nominal initial charging fee followed by progressively increasing per-minute idle charges (e.g., $0.50/minute after 15 minutes post-charge) effectively discourages extended parking without providing revenue to offset enforcement costs.
- **Smart Charging with Demand Response:** Intelligent charging management systems that dynamically allocate power across multiple vehicles eliminate the need for individual vehicle monitoring entirely. Users simply plug in upon arrival, specify any departure time constraints through a mobile app, and allow the system to manage charging completion. This approach converts charging from an active user task to a passive background service.
- **ICEing Prevention:** "ICEing" (internal combustion engine vehicles occupying EV charging spaces) remains a persistent challenge. Clear visual markings (distinctive pavement colors, signage), combined with enforceable penalties specifically addressing non-EV occupation of charging spaces, prove essential. Several jurisdictions have adopted graduated enforcement: initial warnings followed by escalating fines for repeat violations.
- **Non-Networked Station Management:** For non-networked Level 2 chargers (typically lower-cost installations), enforcement relies on passive measures including clear signage, pavement

markings, and optional timers that disable chargers outside specified hours (e.g., restricting charging to business hours at retail locations).

GREENHOUSE GAS EMISSIONS AND CHARGING OPTIMIZATION

TRANSPORTATION ELECTRIFICATION AS CLIMATE STRATEGY

Transportation remains California's largest sources of greenhouse gas emissions. In 2023, transportation accounted for 38% of the state's total GHG output, and approximately 50% when considering activities like the extraction and refining of fossil fuels. Electricity generation, powered increasingly by clean renewable sources, accounts for a declining share of statewide emissions as the grid decarbonizes. This fundamental shift creates a compelling rationale for transportation electrification: replacing fossil-fueled vehicles with PEVs charged on an increasingly clean grid dramatically reduces lifecycle GHG emissions.

California's electricity grid has undergone historic transformation. As of 2025, the state's grid now operates on 67% carbon-free energy sources, composed of solar, wind, hydroelectric, geothermal, and battery storage resources. California's grid runs on 100% clean electricity for an average of 7 hours per day, with clean energy having powered the equivalent of 51.9 days in the first half of 2025 (nearly 30% of the year). This clean energy transition accelerates as the state continues to deploy unprecedented capacity: since 2019, California has added 25,000 megawatts (MW) of new clean energy resources, primarily solar and battery storage, with plans to deploy 148,000 MW of additional clean power by 2045.

This clean-grid transformation fundamentally enhances the climate benefits of vehicle electrification. A PEV charged on today's California grid produces approximately 60% fewer lifecycle emissions than an equivalent gasoline-powered vehicle, and this advantage will continue to improve as the grid becomes progressively cleaner toward the state's target of 80% carbon-free electricity by 2035.

LIFE-CYCLE EMISSIONS: BEVS, PHEVS, AND CHARGING DECISIONS

ZEVs generate zero tailpipe emissions, but lifecycle analysis must also account for emissions associated with electricity generation and transmission. Understanding these dynamics is essential for maximizing environmental benefits.

Battery Electric Vehicles (BEVs) produce no tailpipe emissions; their lifecycle emissions depend on the electricity generation mix used to charge them. On California's 67% carbon-free grid, BEV lifecycle emissions have declined substantially. As the grid continues its clean energy transition toward 80% carbon-free electricity by 2035, BEV environmental advantages will continue to increase.

Plug-in Hybrid Electric Vehicles (PHEVs) offer reduced tailpipe emissions compared to conventional vehicles when utilizing battery propulsion but generate combustion emissions when the internal combustion engine engages. Maximizing environmental benefits from PHEVs requires using the electric battery for short-distance trips where batteries are most practical and reserving internal combustion engine operation for longer trips requiring greater range.

REAL-TIME CARBON INTENSITY AND OPTIMAL CHARGING TIMING

The carbon intensity of California's electricity grid fluctuates continuously throughout the day and across seasons, driven by renewable generation patterns, electricity demand, and generator efficiency. As generating resources with different marginal emissions rates ramp up or down to meet demand, the carbon footprint of each kilowatt-hour consumed varies significantly. For example, midday solar production during peak generation periods can reduce grid carbon intensity to near-zero, while evening periods when solar production declines and natural gas plants ramp up to meet peak residential demand show substantially higher emissions intensities, and this is sometimes 19 times higher than minimum midday values.

This intraday variation creates meaningful opportunities for emissions-conscious EV charging. While a single vehicle charging at a suboptimal time produces minimal grid impact, the aggregate effect proves substantial. Kern County's PEV purchases account for 13% of new vehicle sales in 2025, and statewide market share is approaching reaching 25%. At this scale, shifting EV charging to cleaner periods materially reduces GHG and criteria pollutant emissions.

SEASONAL AND DAILY PATTERNS

California's grid exhibits distinct patterns throughout the year:

- **Summer months (May-September):** Lowest marginal emissions, with solar production often exceeding demand during midday, creating periods of negative pricing where renewable energy **must be curtailed**
- **Winter months (November-March):** Highest marginal emissions, with earlier sunset reducing solar output and evening demand peaks requiring greater natural gas generation
- **Real-time variation:** Marginal emissions can vary on 15-minute to 1-hour cycles based on sudden cloud cover affecting solar, grid frequency fluctuations, or demand spikes

PRACTICAL GUIDANCE: OPTIMAL CHARGING TIMES

The following table provides general guidance for optimal charging timing to minimize emissions, though specific optimization should reference utility-provided real-time carbon intensity data and California's 2025 Energy Code Greenhouse Gas Emissions Hourly Factors, which provide precise, hourly carbon intensity data by location.

TABLE 5: GUIDANCE FOR OPTIMAL CHARGING TIME

TIME PERIOD	CARBON INTENSITY	GRID CHARACTERISTICS	RECOMMENDED USE
MIDNIGHT TO 6 AM	Very Low	Night demand at minimum; efficient gas generators run at peak efficiency; night-time wind generation peaks	Primary optimal charging window. Ideal for home charging, workplace overnight parking; lowest utility rates ($0.22-$0.25/kWh)*
9 AM TO 4 PM	Very Low to Low	Solar photovoltaic production at peak; can provide 50-100% of demand during optimal solar months	Secondary optimal charging window. Ideal for daytime workplace

TIME PERIOD	CARBON INTENSITY	GRID CHARACTERISTICS	RECOMMENDED USE
		(May-October); mid-day demand often lowest	charging, shopping center charging during peak solar production
6 AM TO 9 AM	Moderate	Early morning demand rises; solar production beginning but is limited; remaining night wind generation offsetting natural gas increase	Acceptable but suboptimal; use only if low-cost off-peak rates unavailable
4 PM TO 9 PM	High	Solar production declining as sun sets; residential return-home demand surge; natural gas plants ramping to peak capacity; highest system emissions	Non-optimal charging window. Avoid if possible; utility peak rates ($0.40-$0.60+/kWh) reflect both cost and emissions

** The summertime 9AM – 4PM windows can also be the least expensive time to charge depending on utility time-of-use (TOU) plans specifically for EV owners who work from home during the day.*

Factors to Consider:

- Seasonal variation is significant: winter evening periods show 2-3 times higher emissions than summer evening periods
- Time-of-use utility rates offered by SCE (TOU-D-PRIME), PG&E (TOU-4), and other California providers are explicitly designed to align financial incentives with emissions optimization
- Smart charging systems with utility data integration can automatically optimize timing for individual vehicles without driver intervention
- Real-time carbon intensity varies on 15-minute to hourly cycles; users with charging flexibility can access near-zero-carbon periods by monitoring grid status

TIME-OF-USE RATE ALIGNMENT WITH EMISSIONS OPTIMIZATION

Both Southern California Edison and Pacific Gas and Electric have developed EV rate plans that explicitly structure rates to reward charging during periods of lowest grid carbon intensity while discouraging charging during peak emissions hours.

SCE TOU-D-PRIME AND PG&E TOU-4 STRUCTURE:

- **Off-peak periods (midnight-6 AM, 9 AM-4 PM depending on utility):** $0.22-$0.25/kWh or lower rates directly correlate with lowest emissions periods
- **Peak periods (4 PM-9 PM):** Higher rates ($0.40-$0.60+/kWh) align with highest emissions periods
- **Combined incentive effect:** Drivers optimizing both economics and emissions naturally converge on the same charging times, creating win-win outcomes

CHARGING INFRASTRUCTURE STRATEGY AND EMISSIONS REDUCTION

From a lifecycle perspective, EVCS deployment strategy directly impacts achievable emissions reductions:

- **Distributed Level 2 Charging with Smart Load Management** enables more efficient utilization of grid resources compared to concentrated high-power installations, reducing peak demand impacts while allowing intelligent optimization of charging timing across multiple vehicles.
- **Workplace and Multi-family Charging** enables more diverse commuting patterns, with dayshift charging capturing peak solar generation periods when marginal emissions are lowest and electricity rates (and grid costs) are minimized.
- **Time-of-Use Rate Integration with Charger Software** can algorithmically optimize charging timing to periods of maximum clean generation without requiring conscious user decisions. This approach proves particularly effective at workplaces, multi-unit dwellings, and retail locations where charging durations align with typical occupancy periods and grid carbon intensity is most likely to reach optimal ranges.
- **Grid-Interactive Charging Technologies** enable chargers to respond to real-time grid conditions, supporting renewable energy integration and reducing overall system emissions. Advanced systems can even provide grid services (demand response, frequency support) that improve grid efficiency.

EMISSIONS QUANTIFICATION AND REGIONAL IMPACT

Using California's 2025 Energy Code Greenhouse Gas Emissions Hourly Factors, strategic shifting of EV charging from peak evening hours (4-9 PM) to off-peak optimal windows (midnight-6 AM or 9 AM-4 PM) can reduce average charging emissions by approximately 40-60%, depending on seasonal variation. For Kern County, with projected adoption reaching 29.1% of new sales statewide and proportional penetration in the region, systematic optimization of charging timing across all EV charging infrastructure could reduce annual regional charging-related emissions by an estimated 10,000-15,000 metric tons of CO_2e annually, equivalent to removing 2,000-3,000 gasoline-powered vehicles from roads.

This quantified emissions reduction potential underscores that charging infrastructure strategy extends beyond mere physical deployment: intelligent infrastructure design, rate structures aligned with emissions optimization, and smart charging systems that automate decision-making represent essential levers for maximizing transportation electrification's climate benefits.

ADVANCED CHARGING TECHNOLOGIES

CHARGING FROM DISTRIBUTED RENEWABLE RESOURCES

Kern County is a leader in utility-scale renewable electricity generation, with some of the state’s largest wind farms in the Tehachapi area and numerous utility scale solar farms in Eastern Kern’s high desert areas. Electric vehicles charging from the grid benefit from this low-carbon electricity. Additionally, EV charging can be managed to prioritize charging during periods of high renewable production and reduce charging during times when the grid is more constrained. In the event of widespread power outages, vehicle charging could be interrupted or halted entirely. Distributed resources such as microgrids, large-scale battery storage and solar energy generation add resiliency to operations. At small scales, this already has been demonstrated in real-world settings, particularly on the East Coast following hurricane events. Grid-independent, solar-powered charging also may be necessary in areas where trenching for conduit is not practical.

INTELLIGENT LOAD MANAGEMENT AND DISTRIBUTED CHARGING INFRASTRUCTURE

Rather than dedicating full circuit capacity to a single vehicle that completes charging in 2-4 hours and then sits idle for the remainder of the available charging window, modern load balancing strategies allow multiple vehicles to share available electrical capacity dynamically.

Deploying abundant Level 2 chargers through intelligent load management eliminates "charge monitoring anxiety," whereby PEV drivers must be vigilant about charging session times because they need to move vehicles when charging completes to avoid idle fees. Instead, drivers can park once upon arrival and remain parked throughout their entire visit, with available charging resources dynamically distributed among all connected vehicles according to priority algorithms and individual vehicle needs.

This distributed approach transforms EVCS from a scarce resource requiring active management into a ubiquitous utility seamlessly supporting EV ownership. The user experience becomes transparent: drivers plug in, the system manages charging optimization, and vehicles depart charged according to its priority.

LOAD BALANCING TECHNOLOGY: MAXIMIZING INFRASTRUCTURE EFFICIENCY

Load balancing in the EVCS context involves efficiently utilizing available electrical and physical capacity to deliver variable power levels to multiple chargers based on real-time demand and individual vehicle charging requirements. Without load balancing, electrical systems must be sized for simultaneous full-power operation of all chargers, requiring expensive electrical service upgrades when adding capacity. More critically, dedicated allocation to a single vehicle that completes charging in 2-3 hours leaves the EVCS idle for the remaining hours, wasting infrastructure investment and frustrating would-be users.

Intelligent load balancing provides three primary benefits:

1. **Capacity Optimization –** Multiple chargers can operate within existing electrical service capacity by dynamically allocating power based on vehicle state of charge, arrival/departure patterns, and charging preferences. A facility with five parking spaces might accommodate eight chargers through intelligent power-sharing, expanding coverage for a relatively modest additional investment.
2. **Cost Reduction –** Demand charges are based on peak electricity consumption and represents 20-50% of commercial electricity costs. Load balancing flattens demand curves, significantly reducing peak demand charges and electricity bills for property owners.
3. **User Experience Enhancement–** Abundant chargers (one per space or higher ratios) with intelligent load management create convenience comparable to gasoline refueling, where users arrive, park, charge automatically, and depart without monitoring charging status or repositioning their vehicle.

POWER-SHARING ARCHITECTURES

DUAL-PORT SIMULTANEOUS POWER SHARING

The most basic implementation uses dual-port EVCS that can share a single circuit. When one vehicle is plugged in, it receives full power. When two vehicles connect simultaneously, each vehicle receives 50% of the available power. Upon completion of one vehicle's charging, the system automatically returns to 100% power for the remaining vehicle. This approach provides:

- **Flexible capacity:** One charger port serves two charging spaces
- **Minimal idle time:** Power continues flowing to the vehicle still needing charge
- **User transparency:** No user intervention required; charging proceeds automatically
- **Cost efficiency:** Doubles port capacity without doubling electrical infrastructure

ADVANCED DYNAMIC LOAD MANAGEMENT

Next-generation systems employ real-time vehicle communication to optimize power allocation based on:

- **Individual vehicle state of charge:** Vehicles with lower battery levels receive priority power allocation
- **Departure time optimization:** Vehicles departing sooner receive higher power to ensure full charge
- **Renewable energy alignment:** Charging timing shifts to periods of maximum clean grid availability
- **Time-of-use rate optimization:** Charging loads shift to minimize electricity costs while respecting user preferences
- **Grid support services:** Chargers can provide ancillary grid services during periods of grid stress or renewable variability

The multiplier effect of advanced charging technologies extends deployment resources, accelerates coverage in underserved areas, and reduces per-port infrastructure costs through more efficient utilization of existing electrical capacity.

3. EXISTING CONDITIONS

Kern County is located at the southern end of the Central Valley and stretches into the High Desert, making it geographically diverse with a wide array of land uses, climate zones, and infrastructure demands. Transportation throughout Kern County is impacted by its diverse geography, which includes the San Joaquin Valley, Sierra and Tehachapi Mountain Ranges, the Mohave Desert, and the Kern River. The Sierra Nevada mountain range naturally divides Kern into east and west. Population in the 8,200-square-mile county was estimated to be 928,412 in 2025 (World Population Review). Agriculture dominates some zones and mining/energy dominates others.

Statewide, plug-in electric vehicle (PEV) market share is approximately 4.95%. Within Kern County, in 2025, there were 594,057 total light-duty vehicles registered. Of those vehicles, 12,760 (2.1 %) were PEVs, marking a notable advance from the time the Blueprint was first developed when the county trailed both state and national averages. It now stands well above the U.S. average of approximately 1.4. Data from the California Clean Vehicle Rebate Project (CVRP) suggests that Kern County residents who own a detached home are the most likely to purchase an EV. As of 2025, there were 3,684 charging ports in Kern County. Seventy-nine percent of these ports are Level 2 (2,913) and 19% are DCFCs (771).

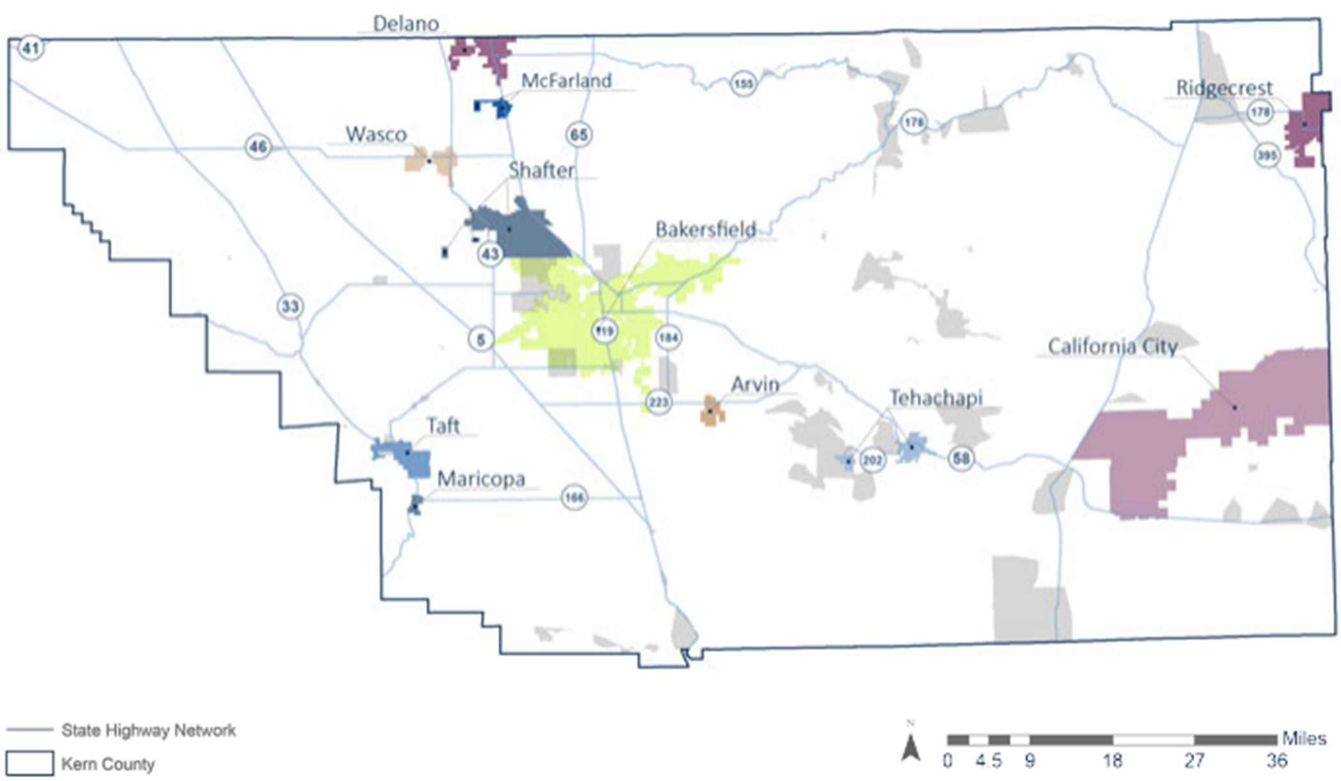

FIGURE 5: KERN COUNCIL OF GOVERNMENT MEMBER CITIES

Kern County residential land use is generally categorized as sprawling, low-density development, which results in long trip lengths for many trip categories. Residents in low-density areas typically do not have shopping, recreation or entertainment options within walking distance. This results in significant vehicular travel, which contributes to the county's poor air quality and reduces livability (as measured by time in traffic). Under Kern's Sustainable Communities Strategy (SCS), future development is encouraged to locate affordable housing options near workplace and travel corridors to accommodate the growing population yet reduce vehicle miles traveled and resulting emissions.

DISADVANTAGED COMMUNITIES (DAC)

Kern County suffer from by persistent poor air quality. According to the California Environmental Protection Agency (CalEPA), disadvantaged communities (DACs) in California are specifically targeted for investment of proceeds from the state's cap-and-trade program. These investments are aimed at improving public health, quality of life and economic opportunities in California's most burdened communities and at the same time they're reducing GHG emissions that contribute to climate change. To identify the DACs, California's Office of Environmental Health Hazard Assessment (OEHHA) developed the SB 535 Disadvantaged Communities tool. According to this tool, most of the populated areas of Kern County qualify as DACs as shown in Figure 6 below.

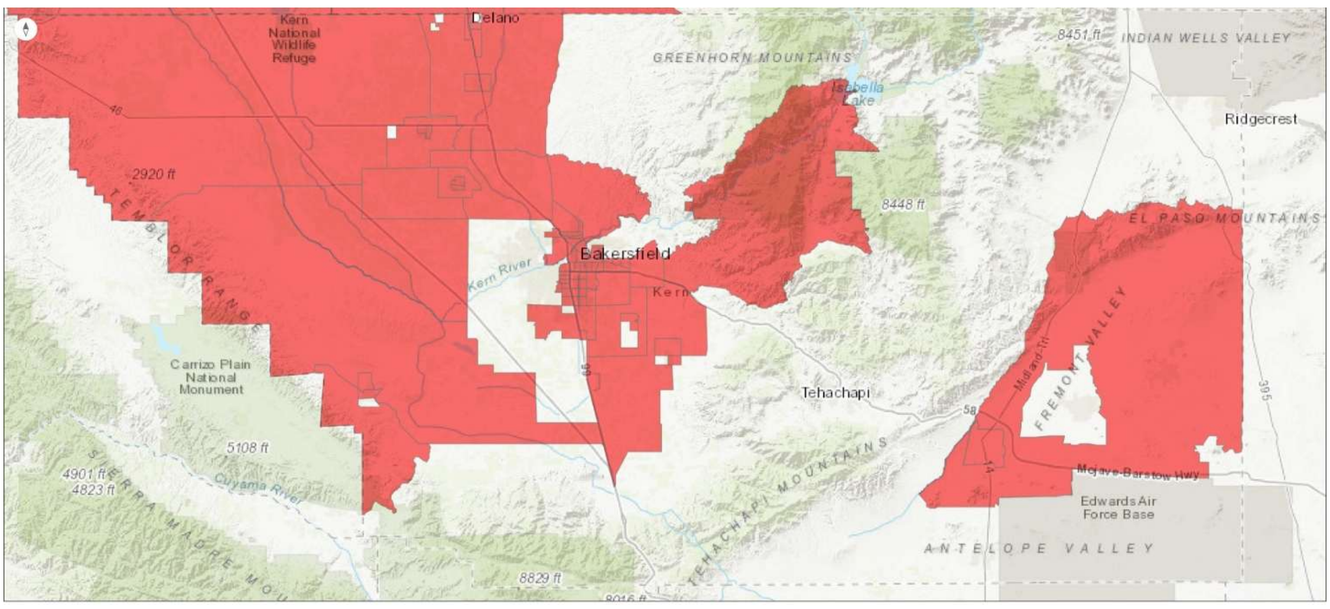

FIGURE 6: SB 535 DISADVANTAGED COMMUNITIES (2022 UPDATE)

Two air districts serve Kern County, the Eastern Kern Air Pollution Control District (EKAPCD) and the San Joaquin Valley Air Pollution Control District (VAD). Both the VAD and the EKAPCD remain in non-attainment for key pollutants under federal standards, primarily ozone (8-hour) and $PM_{2.5}$. San Joaquin Valley is classified as Extreme non-attainment for ozone and Serious non-attainment for $PM_{2.5}$, while Eastern Kern is classified as Severe non-attainment for ozone.

PEV POPULATION

The region has a significant number of EV drivers, EVCS and conditions that support wider EV adoption. Vehicle registration statistics and charging station data are primary indicators of the existing EV market size. There are currently 3,941 plug-in hybrid electric vehicles (PHEVs) and 8,800 battery electric vehicles (BEVs) in the region at the end of 2024 according to the CEC's Light-Duty (LD) Vehicle Population dashboard.[i]

TABLE 6: NUMBER OF EV VEHICLES IN CALIFORNIA AND KERN COUNTY

LOCATION	BEV	PHEV	TOTAL PEVS	TOTAL LD VEHICLES
STATE OF CALIFORNIA	1,453,994	432,880	1,899,831	27,472,463
KERN COUNTY	8,800	3,941	12,760	594,057
KERN COUNTY % OF STATE	**.60%**	**.91%**	**.67%**	**2.16%**

EVCS POPULATION

The data sources for the maps below include the National Renewable Energy Laboratory's publicly accessible Alternative Fuels Data Center (AFDC) Station Locator, which draws from reporting by station developers/operators, original equipment manufacturers, infrastructure providers, media, and users as well as the PlugShare user-reported platform. In addition, the California Energy Commission (CEC) integrates data from state-grant-recipient reports and voluntary surveys of shared-private chargers (workplace, multifamily, fleet) to estimate the total charging infrastructure. Lastly, information on chargers at multifamily dwellings were obtained with primary research. Rental units with private garages were assumed to qualify as a Level 1 charging space. For the EnergIIZE and Communities in Charge programs, the numbers and types of chargers installed were inferred based on the amount of funding and the program requirements.

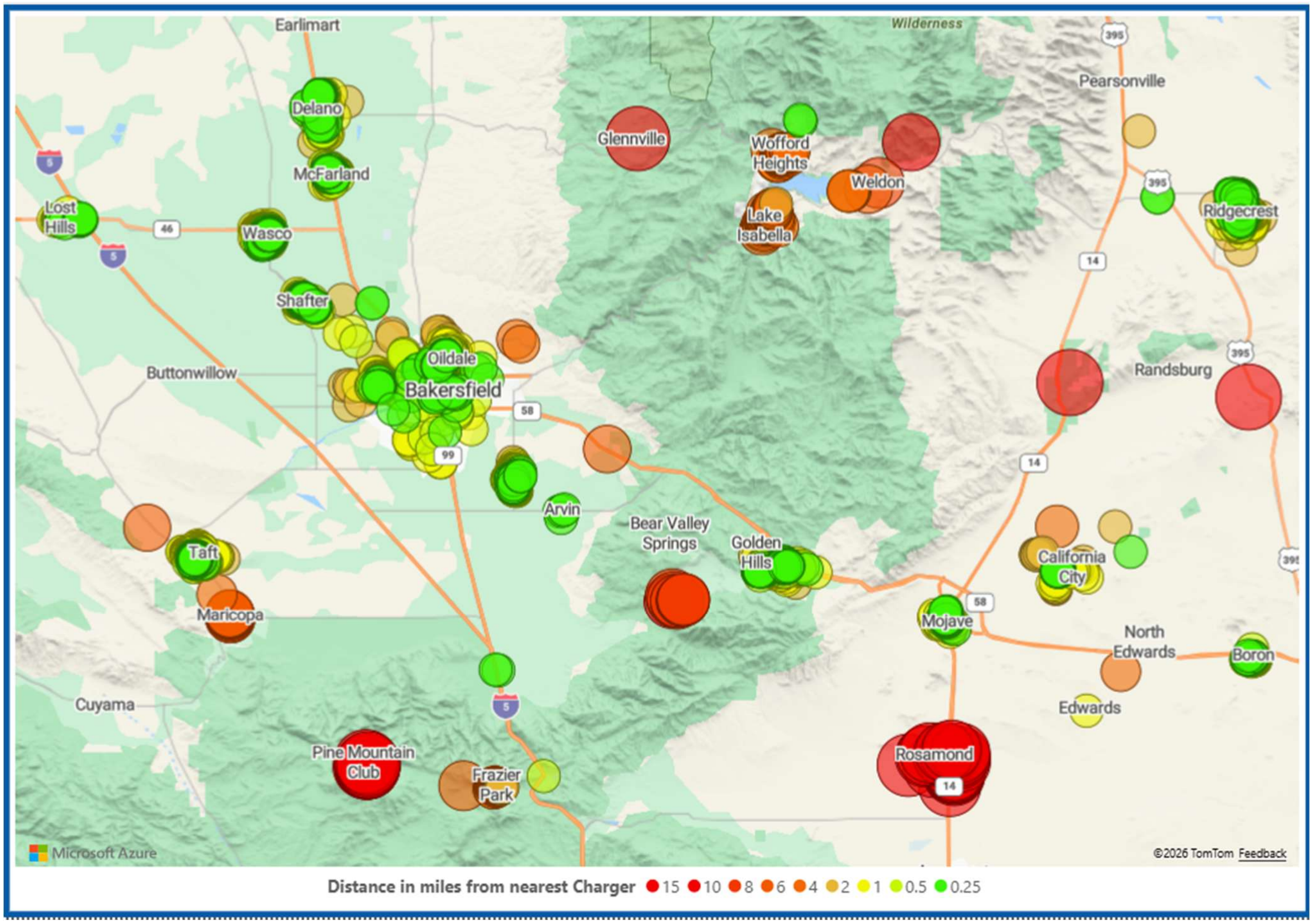

FIGURE 7 - PRIORITY AREAS BY DISTANCE FROM NEAREST CHARGING STATION

For an interactive version of this visualization, please visit:
https://dkselectromobility.com/kern-cog-evcs-blueprint/

The red circles in the map in **Error! Reference source not found.** denote charging deserts, areas that are significantly underserved by public charging infrastructure. While population centers around Bakersfield and along main highway corridors (Interstate 5, State Route 99, State Route 58) are comparatively well represented with charger installations, other communities stand out for their lack. For example, City of Maricopa with a population of over 1,000 residents, doesn't have any charging stations. Similarly places like Pine Mountain Club and Stallion Springs are lacking chargers, but are not classified as DACs, suggesting that cost or socio-economic status may not be the primary barrier. This indicates other factors (e.g., grid infrastructure, access/visibility, demand profile) may be at play. Further north, the communities around Lake Isabella, stretching from Glennville in the foothills to Randburg in the high desert, remain largely devoid of EV charging sites, and many of these areas are within DACs. The Rosamond area is particularly striking: situated approximately 15 miles from both Lancaster in Los Angeles County and community of Mojave, it has no public chargers, which could make living there with an EV very inconvenient. The community's receptiveness should also be considered when targeting investment in some of these areas. If the community doesn't want chargers for whatever reason, those feelings ought to be respected. If not, vandalized chargers or theft could be the result.

Notably, our siting analysis did *not* identify any completely new priority areas beyond those flagged in the 2019 Blueprint. Therefore, we recommend adopting a map-based approach with overlays that show where charging investments have been made and where significant gaps remain, thereby enabling more pragmatic targeting of future investment and policy efforts.

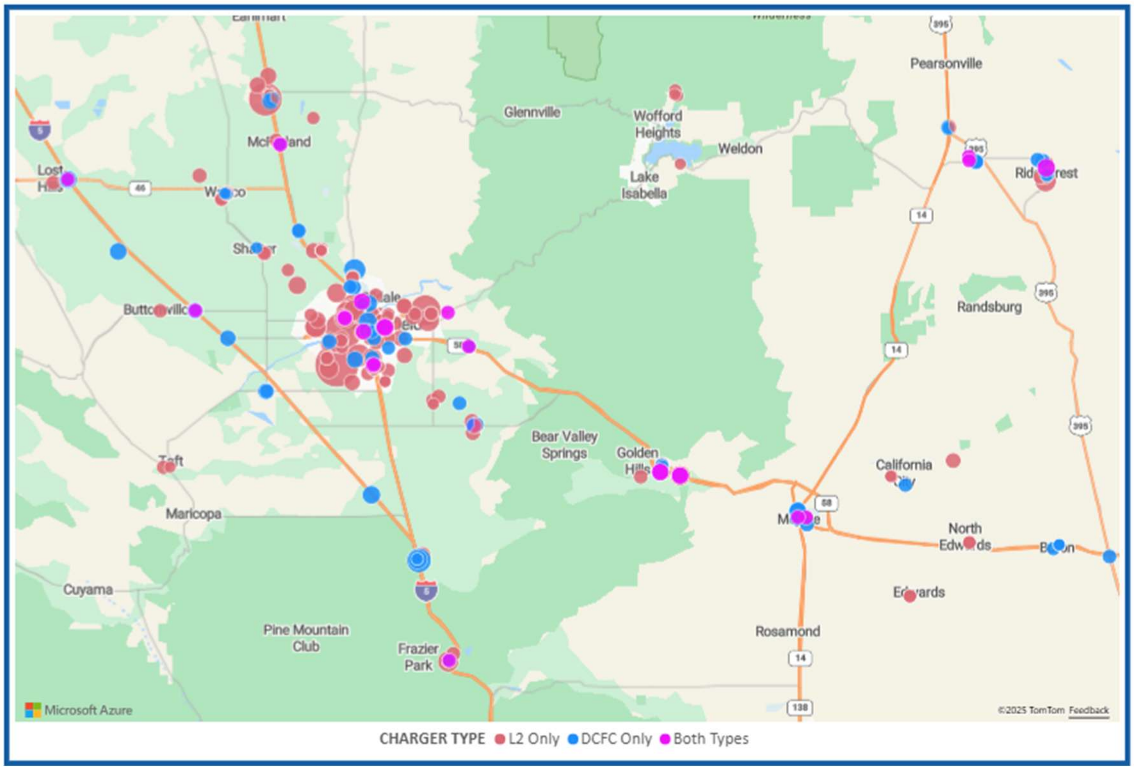

FIGURE 8: DISTRIBUTION OF EV CHARGERS IN KERN COUNTY

For an interactive version of this visualization, please visit:
https://dkselectromobility.com/kern-cog-evcs-blueprint/

This map illustrates the breadth and distribution of EV chargers installed in Kern County through 2025. The county has exceeded its Scenario A goal of 1,364 chargers by 256% and has achieved 83% of its more ambitious Scenario B target of 4,426 chargers. Of the 3,684 total charging ports installed, 771 are DC fast chargers (DCFC), which underscores a strong emphasis on high-speed EVCS.

The bulk of chargers are clustered around the Bakersfield area and along major highway corridors. This aligns well with mobility-demand logic, but it also means rural or peripheral tracts may remain underserved.

Charger installations are heavily concentrated in and around the Bakersfield area, with clear strategic deployment along the major transportation corridors of Interstate 5, State Route 58, and

State Route 99. In fact, the I-5 corridor features hundreds of chargers spaced at roughly 10-mile intervals, with a majority of those being Tesla Superchargers. This pattern suggests a corridor-oriented investment strategy, optimizing for long-haul reliability and traveling convenience.

Given that the corridor strategy appears strong, tracking usage, reliability, and downtime of the DCFCs could inform where maintenance or upgrades are needed.

Lost Hills Tesla Supercharger Hub - World's Largest Off-Grid Solar-Powered EVCS

FIGURE 9-LOST HILLS TESLA SUPERCHARGER—WORLD'S LARGEST OFF-GRID SOLAR-POWERED EV CHARGING HUB (I-5 & HIGHWAY 46, LOST HILLS, CA)

Key Statistics:

- 168 Tesla Supercharger V4 Stalls
- Solar Canopy with integrated Megapack battery storage
- Fully off-grid capable operation
- Location: I-5 & Highway 46, Lost Hills, Kern County
- Status: Fully operational as of 2025

The Lost Hills Tesla Supercharger represents the pinnacle of EV charging infrastructure innovation in Kern County. As the world's largest solar-powered off-grid Tesla Supercharger facility, this installation demonstrates the viability of sustainable, energy-independent fast-charging deployment aligned with California's 2035 carbon neutrality goals and Kern County's transportation electrification objectives.

The facility currently operates on the east side of I-5. While strategically positioned for long-distance travelers and regional connectivity, future amenity expansion on the west side of the freeway could enhance driver experience and convenience.
Strategic Significance:

- Validates distributed renewable energy + EV charging integration model
- Demonstrates scalability of solar-powered DCFC infrastructure
- Establishes a benchmark performance for privately-funded regional deployment
- Supports AB 2127 compliance and ambitious Scenario B targets

POLICY & PLANNING

STATEWIDE: BUILDING AND DEVELOPMENT CODES

The CalGreen Code, effective January 1, 2017 for the 2016 edition and updated most recently with the 2022 triennial edition effective January 1, 2023, mandates and supports EV-infrastructure readiness in residential and commercial buildings. Under Section 4.106.4, new construction must comply with either § 4.106.4.1 (one- and two-family dwellings) or § 4.106.4.2 (multifamily dwellings) and must follow the California Electrical Code (CEC) Article 625 for EVCS installation.

For one- and two-family homes and townhomes with attached garages, the mandatory requirement remains that each unit's parking space has a listed raceway (conduit) installed to accommodate a 208/240-volt dedicated branch circuit, the service panel or sub-panel must designate "EV CAPABLE," and the required branch circuit must be rated for a minimum of 40 amps. For multifamily dwellings in the 2022 edition, the mandatory threshold is now 10% of total parking spaces must be EV Capable (i.e., raceway and panel space for future charger installation) for new construction.

Voluntary tiers (Appendix A4) elevate the requirements: for example, 25% EV Ready (low-power Level 2 receptacles) and 5% Level 2 EVCS for buildings with 20 or more units at Tier 1, and 40% EV Ready + 15% Level 2 EVCS at Tier 2.

For commercial/non-residential facilities, Section 5.106.5.3 (and Appendix A5 for voluntary tiers) sets out the required numbers of EV capable spaces and EVCS based on total parking spaces. For larger parking facilities the Code requires 20% of total spaces be EV Capable, and a proportion of those must provide EVCS for immediate use. The Code also contains exception clauses where utility service is not feasible and signage/marking requirements to identify EV-capable circuits and parking spaces.

The local governments within the region do not currently have building codes requiring EV readiness beyond what is required by CalGreen.

TABLE 7: REQUIREMENTS FOR EV PARKING SPACES

NUMBER OF PARKING SPACES	MANDATORY REQUIREMENT (EV CAPABLE SPACES)[1]	VOLUNTARY TIER 1 REQUIREMENT (EV CAPABLE + EVCS)	VOLUNTARY TIER 2 REQUIREMENT (EV CAPABLE + EVCS)
0-9	0	(not specified)	(not specified)

NUMBER OF PARKING SPACES	MANDATORY REQUIREMENT (EV CAPABLE SPACES)[1]	VOLUNTARY TIER 1 REQUIREMENT (EV CAPABLE + EVCS)	VOLUNTARY TIER 2 REQUIREMENT (EV CAPABLE + EVCS)
10-25	4	(Tier 1 value from table: e.g., 26 spaces → 8)[2]	(Tier 2 value from table: e.g., 26 spaces → higher)[2]
26-50	8	Tier 1: "8 EV Capable and 2 EVCS"	Tier 2: "(higher) EV Capable & 3 EVCS"
51-75	13	Tier 1: "13 EV Capable and 3 EVCS"	Tier 2: "(higher) EV Capable & more EVCS"
76-100	17	Tier 1: "17 EV Capable and 4 EVCS"	Tier 2: "(higher) EV Capable & EVCS"
101-150	25	Tier 1: "25 EV Capable and 6 EVCS"	Tier 2: "(higher) EV Capable & EVCS"
151-200	35	Tier 1: "35 EV Capable and 9 EVCS"	Tier 2: "(higher) EV Capable & EVCS"
201 & OVER	20 % of total parking spaces[3]	Tier 1: "25% of EV Capable spaces"	Tier 2: (higher percentage)

Source: California Building Standards Commission. (2022). California Green Building Standards Code (CalGreen)

Notes:
[1] "EV Capable" means parking spaces served by installed raceway, panel capacity and termination for future EV charging.
[2] The Tier 1 & Tier 2 values for exact counts at the 10-25, 26-50, etc. brackets are interpreted from the table and commentary; specific tabulated values may vary by project size and locality.
[3] For projects with 201 or more spaces, calculation must be rounded up to the nearest whole number.

REGIONAL: PLANS

As of 2025, Kern COG has completed several foundational planning documents to guide regional transportation and sustainability efforts. In 2018, the agency adopted the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which was subsequently updated in 2022 and is maintained on a four-year cycle to integrate land use and transportation planning while reducing greenhouse gas emissions from passenger vehicle travel. Also completed in 2018 were the Active Transportation Plan and an Intelligent Transportation Systems (ITS) Plan for the region. Kern COG continues to adopt short-term capital programming documents under the Federal Transportation Improvement Program (FTIP). The 2025 FTIP was approved by Kern COG in July 2024. Kern COG also administers the Congestion Mitigation and Air Quality (CMAQ) Program and supports rural transit alternatives throughout the county. The region has advanced clean mobility initiatives, including Míocar, an all-electric vehicle carsharing pilot funded by the California Air Resources Board (CARB) under the Ecosystem of Shared Mobility program. This initiative was launched in 2019 to serve affordable housing communities in Kern and Tulare counties. At the local level, Kern County and the cities of Delano, McFarland, Ridgecrest, and Tehachapi have all developed Energy Action Plans, while the City of Bakersfield adopted a Priority Climate Action Plan in 2024, demonstrating the region's commitment to energy efficiency and climate resilience aligned with state and federal mandates.

REGIONAL: POLICIES

CARB adopted the Innovative Clean Transit (ICT) regulation in December 2018. The rule requires public transit agencies that own, lease or operate buses with a gross vehicle weight rating above 14,000 lbs. to transition to zero-emission buses (ZEBs). For transit agencies with more than 65 buses in annual maximum service in the San Joaquin Valley, the regulation mandates that 25% of new bus purchases be ZEBs beginning in 2023, rising to 50% in 2026 and 100% by 2029. For small transit agencies with fewer than 65 buses in annual maximum service, the 25% ZEB new-bus purchase requirement begins in 2026 and rises to 100% in 2029. The regulation does not apply to vehicles operating on rails or a fixed guideway.

FUNDING AND INCENTIVES FOR EVCS DEPLOYMENT

STRATEGIC ROLE OF INCENTIVE PROGRAMS

Reducing EVCS installation costs through targeted incentive and funding programs is essential to accelerating infrastructure deployment and achieving Kern County's targets of 4,426 charging spaces (Scenario A) by 2035 and 12,745 spaces (Scenario B/AB 2127) by 2035. Funding mechanisms like utility programs, state incentives, and federal infrastructure grants provide substantial cost-sharing opportunities that can reduce or eliminate net deployment costs for qualified projects. Strategic coordination of these funding sources enables property owners and public agencies to deploy infrastructure with lower investments.

FEDERAL FUNDING OPPORTUNITIES

National Electric Vehicle Infrastructure (NEVI) Formula Program

The NEVI program, authorized under the Bipartisan Infrastructure Law (2021) and funded with $5 billion, provides the single largest funding source for EVCS deployment in California. NEVI funds support deployment of DCFCs along designated Alternative Fuel Corridors, with federal cost-sharing up to 80% of eligible project costs. In Kern County, priority NEVI corridors include I-5, State Route 99, State Route 58, and State Route 14. Eligible costs cover charger acquisition, installation, make-ready electrical work, operations, and maintenance.

Key Features:

- **Federal cost-share:** Up to 80% of project costs
- **Applicant match requirement:** Minimum 20% nonfederal funding
- **Eligible applicants:** States, local agencies, tribes, private entities (for publicly accessible chargers)

- **Geographic focus:** Alternative Fuel Corridors with priority for underserved and disadvantaged communities
- **Funding status:** $5 billion authorized; implementation ongoing through state transportation agencies

As of 2025, NEVI implementation in California is administered through Caltrans in coordination with the California Energy Commission. Kern County stakeholders should coordinate with Caltrans to identify priority corridor projects and submission timelines.

Charging and Fueling Infrastructure (CFI) Grant Program

Complementary to NEVI, the CFI program provides $2.5 billion over 5 years for community-based and corridor charging projects in areas underserved by existing infrastructure. CFI addresses charging deployment gaps beyond highway corridors, focusing on urban neighborhoods, rural communities, and disadvantaged communities. Federal cost-sharing reaches up to 80%, with applicant match requirement of 20%.

Key Characteristics:

- **Eligible locations:** Urban/rural communities, neighborhoods, downtown areas, publicly accessible sites
- **Priority:** Underserved and disadvantaged communities
- **Project size:** Community grants range $500,000-$15,000,000; corridor grants $1,000,000+
- **Eligible applicants:** States, local agencies, tribes, nonprofit organizations, authorities with public facility ownership

While this program has not yet been formally sunset or used up, there has been some uncertainty around the program since 2025 due to political and administrative headwinds, with some sources describing the CFI as "currently paused".

CALIFORNIA STATE FUNDING PROGRAMS

Communities in Charge (CALeVIP 2.0)

The Communities in Charge program, administered by the California Energy Commission's Clean Transportation Program, provides incentive funding for light-duty EV charging infrastructure with strong emphasis on disadvantaged community access. The program operates through multiple funding waves targeting specific project types:

1. **Wave 4 (Current Focus): Multi-Family Housing**
    - **Base incentive:** Up to $3,500 per connector or 75% of eligible project costs (whichever is less)
    - **Tribal/nonprofit bonus:** Additional $3,500 per connector for Tribal government sites and nonprofits serving Tribal communities
    - **Target:** Addressing charging access barriers for renters and multi-unit dwelling residents
    - **Funding available:** Ongoing with multiple solicitation rounds

2. Fast Charge California Project (FCCP-1)

- **Funding:** At least $55 million for DCFC infrastructure
- **Geographic scope:** Statewide (Northern, Southern, Eastern, Central regions)
- **Requirement:** Final Utility Service Design and Issued Permit required at application
- **Applicants:** Public and private entities deploying publicly accessible DCFC

3. Key Features of Communities in Charge:

- Priority for disadvantaged communities and underserved areas
- Supports Level 2 and DC Fast Charging
- Accessible to public agencies, nonprofits, and private entities
- Multiple funding waves addressing different project types and equity priorities
- Strong emphasis on environmental justice and emissions reductions

Alternative and Renewable Fuels and Vehicle Technology Program (ARFVTP)

The California Energy Commission administers ARFVTP, providing annual investments (averaging $100+ million) for advanced transportation and fuel technologies, including EVCS. The program supports infrastructure that advances California's GHG reduction, fossil fuel reduction, and zero-emission vehicle adoption goals. Funding amounts and eligibility vary by annual investment cycle.

LOCAL UTILITY PROGRAMS

Southern California Edison (SCE) – Charge Ready Program

SCE's Charge Ready Program provides comprehensive support for Level 2 EVCS deployment at long-dwell parking locations (4+ hours typical occupancy). The program is particularly well-suited for Kern County locations served by SCE:

<u>Coverage and Support:</u>

- Geographic scope: SCE service territory (includes significant portions of Kern County)
- Eligible locations: Workplaces, multi-unit dwellings, fleet facilities, destination centers (sports venues, hotels, shopping centers)
- Minimum deployment: 10 charging stations per site (5 minimum in disadvantaged communities)
- Infrastructure: SCE installs dedicated electrical circuits at no cost to site owner
- Incentives: SCE provides rebates offsetting charger purchase and installation costs

<u>Eligibility Requirements:</u>

- Site owner provides easement grant to SCE
- Proof of qualified equipment purchase
- Long-dwell parking characteristics (4+ hours average occupancy)

Program Status: Ongoing; applicants should contact SCE directly for current funding availability and processing timelines.

Pacific Gas and Electric (PG&E) Programs

PG&E previously administered the FleetReady, Fast Charge, and EV Charge Network Programs, funded by the California Public Utilities Commission. As of 2025, these programs have concluded or are being transitioned. Property owners in PG&E service territories should verify current program status and explore alternative funding sources through state and federal programs.

REGIONAL AIR DISTRICT FUNDING

San Joaquin Valley Air Pollution Control District – Valley Air Charge Up! Program

Valley Air provides funding for EVCS installation across the San Joaquin Valley region, including Kern County:

- **Incentive Amounts:**
  - Level 2 single-port chargers: Up to $5,000 per charger
  - Level 2 dual-port chargers: Up to $6,000 per charger
  - DC Fast Chargers: Up to $25,000 per charger
- **Vehicle purchase rebates:** Up to $2,000 for PHEVs, $3,000 for BEVs
- **Eligible Applicants:** Public agencies, businesses, multi-unit dwellings, community organizations
- **Program Status:** Ongoing; applicants should contact Valley Air for current application cycles and funding availability.

COORDINATED FUNDING STRATEGY FOR KERN COUNTY

Maximizing infrastructure deployment efficiency requires strategic coordination of multiple funding sources:

1. **NEVI + CFI for DC Fast Charging:** Priority DC Fast Chargers on State Route 99, Interstate 5, and State Route 58 can access NEVI corridor funding (80% federal cost-share); community-based DCFC deployments can access CFI program funding
2. **Communities in Charge for Multi-family and Disadvantaged Communities:** Level 2 chargers at multi-unit dwellings and facilities serving disadvantaged communities can access state incentive funding with strong equity alignment
3. **SCE Charge Ready for Workplace/Destination Charging:** Kern County locations with long-dwell parking can leverage SCE's no-cost infrastructure deployment combined with state incentive rebates
4. **Valley Air Grant Coordination:** Regional air district funding can complement state and federal programs, particularly for projects not fully funded through other mechanisms
5. **Implementation Goal 4 Strategic Alignment:** Performance-based incentive structures outlined in Implementation Goal 4 should prioritize projects accessing federal/state funding, directing limited local resources toward gap-filling and early-mover projects

TABLE 8: FUNDING PROGRAM SUMMARY TABLE

PROGRAM NAME	DESCRIPTION	FUNDING AMOUNTS	ELIGIBILITY
NEVI FORMULA PROGRAM	Federal funding for DC Fast Chargers on Alternative Fuel Corridors; 80% federal cost-share	$5 billion total; up to 80% project cost (20% applicant match required)	Public agencies, tribes, private entities; located on Interstate 5, SR 99, SR 58, SR 14; publicly accessible chargers
CHARGING & FUELING INFRASTRUCTURE (CFI) GRANT	Federal funding for community-based EV charging in underserved areas beyond highway corridors	$2.5 billion (5-year); Community: $500K-$15M; Corridor: $1M+	States, local agencies, tribes, nonprofits; community sites, neighborhoods, DACs; publicly accessible
COMMUNITIES IN CHARGE (WAVE 4)	California state incentives for multi-family housing and related charging infrastructure	Up to $3,500/connector or 75% of costs (whichever less); Tribal bonus: +$3,500/connector	Multifamily housing, Tribal entities, nonprofits; strong DAC priority
FAST CHARGE CALIFORNIA (FCCP-1)	California state program for DC Fast Charging statewide	$55+ million available	Public/private entities; requires Final Utility Design & Permit at application; statewide eligibility
ARFVTP	California Energy Commission annual investments in advanced transportation tech including EVCS	$100+ million annually; varies by cycle	Varies by solicitation; generally public/private entities advancing GHG reduction
SCE CHARGE READY PROGRAM	Utility program covering electrical infrastructure costs at long-dwell locations; rebates for charger hardware	Infrastructure: 100% SCE-funded; Charger rebates: varies	Long-dwell sites (4+ hrs parking): workplaces, MUDs, fleets, destination centers; in SCE service territory
VALLEY AIR CHARGE UP!	Regional air district funding for EVCS and vehicle purchase across San Joaquin Valley	Level 2 single: $5,000; Level 2 dual: $6,000; DCFC: $25,000	Public agencies, businesses, MUDs, community orgs; located in Valley Air jurisdiction
PG&E PROGRAMS	Utility-administered programs (status: concluded or transitioning as of 2025)	Varies by prior program	Check current status with PG&E; explore alternative funding sources

BARRIERS TO PEV ADOPTION AND EVCS DEPLOYMENT

Regional stakeholders engaged throughout this Blueprint update process identified multiple persistent barriers to electric vehicle adoption and charging infrastructure expansion in Kern County. These barriers are consistent with industry-wide challenges documented across California and the United States. Importantly, this Blueprint specifically addresses each identified barrier through targeted implementation strategies organized across four core goals: 1) GHG Emissions Reduction; 2) Transportation Infrastructure Readiness; 3) EV/EVCS Awareness & Adoption; 4) EVCS Affordability. The updated Implementation Plan provides clear, actionable recommendations that regional stakeholders can pursue to enhance conditions supporting adoption, eliminate identified barriers, and accelerate Kern County's transition to electrified transportation.

TABLE 9: BARRIERS TO PEV ADOPTION AND EVCS DEPLOYMENTS

BARRIER CATEGORY	SPECIFIC BARRIER	CURRENT SITUATION	BLUEPRINT IMPLEMENTATION STRATEGY	RESPONSIBLE PARTIES
AWARENESS & KNOWLEDGE	Limited awareness and public understanding of EV/charging technology	Limited public knowledge of PEV capabilities, charging options, and infrastructure locations; consumer confusion about vehicle selection and charging logistics	Implementation Goal 3: EV/EVCS Awareness & Increased Adoption - Strategy 3: Blueprint Tracking & Reporting - Strategy 4: Workforce Training - Strategy 5: Blueprint Integration into Local Planning - Strategy 10: Regional EV Expert & Technical Advisory Program - Strategy 11: Regional EV/EVCS Marketing Campaign - Strategy 16: Second Marketing Campaign (Mid-term)	Kern COG, Community Based Organizations, Educational Institutions, Utilities
INSTALLATION COMPLEXITY	Fragmented and complex regional permitting processes	Inconsistent municipal permitting requirements create uncertainty, increase timelines, and discourage infrastructure deployment; lack of standardized guidance across jurisdictions	Implementation Goal 2: Transportation Infrastructure Readiness - Strategy 2: Regional EVCS Collaborative/Task Force - Strategy 8: Streamlined Permitting & Local EVCS Ordinance Development Implementation Goal 3: EV/EVCS Awareness - Strategy 3: Blueprint Tracking & Reporting - Strategy 4: Workforce Training	Kern COG, Municipalities, County of Kern

BARRIER CATEGORY	SPECIFIC BARRIER	CURRENT SITUATION	BLUEPRINT IMPLEMENTATION STRATEGY	RESPONSIBLE PARTIES
COST BARRIERS	High capital installation costs; uncertain operational and maintenance costs; challenging project economics (ROI)	Real and perceived capital costs remain significant deployment obstacles; operating cost uncertainty discourages private investment; business case challenges delay decision-making	Implementation Goal 2: Transportation Infrastructure Readiness - Strategy 2: Regional Coordination - Strategy 8: Streamlined Permitting Implementation Goal 4: EVCS Affordability - Strategy 6: Aggressive Pursuit of Funding (NEVI, CFI, CALeVIP 2.0, Communities in Charge, LCFS) - Strategy 17: Regional EVCS Cost & Business Case Analysis - Performance-based incentive programs (fee waivers, expedited permitting)	Kern COG, Municipalities, Private Operators, Utilities
FRAGMENTED DEPLOYMENT	Isolated early-adopter projects lack regional coordination	Early EVCS projects across Kern County, while impactful, proceed in isolation without coordination or knowledge-sharing, limiting cumulative impact and missing opportunities for economies of scale	Implementation Goal 2: Transportation Infrastructure Readiness - Strategy 2: Regional EVCS Collaborative/Task Force (semi-annual meetings) Implementation Goal 3: EV/EVCS Awareness - Strategy 3: Blueprint Tracking & Reporting - Strategy 4: Workforce Training - Strategy 5: Blueprint Integration - Strategy 10: Technical Advisory Program - Strategy 11: Marketing Campaign	Kern COG, Early Adopters, Municipalities, Private Operators

BARRIER CATEGORY	SPECIFIC BARRIER	CURRENT SITUATION	BLUEPRINT IMPLEMENTATION STRATEGY	RESPONSIBLE PARTIES
DEMAND SUSTAINABILITY	Limited and fragmented EV market demand in Kern County	As of 2025, Kern County PEV market share (14.2%) lags state average (29.1%) and early-adopter counties (Fresno, Stanislaus); sustained demand requires regional commitment from OEMs, dealers, consumers, and employers	Implementation Goal 1: GHG Emissions Reduction - Strategy 1: Annual GHG Emissions Reporting Implementation Goal 3: EV/EVCS Awareness - Strategy 3: Blueprint Tracking & Reporting - Strategy 4: Workforce Training - Strategy 5: Blueprint Integration - Strategy 10: Technical Advisory Program - Strategy 11: Marketing Campaign - Strategy 16: Second Marketing Campaign	Kern COG, Regional Marketing Partners, OEM Dealers, Employers, CBOs
EQUITY & ACCESS	Unequal geographic distribution of charging infrastructure; limited access for disadvantaged communities and rural populations	Charging deserts persist in Lamont, Delano, Kern River Valley, east Bakersfield; DAC residents face longer distances to charging; rural populations isolated from infrastructure	Implementation Goal 1: GHG Emissions Reduction - Strategy 1c: Increase EVCS in DACs Implementation Goal 2: Transportation Infrastructure Readiness - Strategy 9: Public DCFC Corridor & Gap Filling Implementation Goal 4: EVCS Affordability - Strategy 6: Equity-focused funding (Communities in Charge, NEVI equity set-asides)	Kern COG, Municipalities, State Agencies (CEC, CaRB)
USER EXPERIENCE FRICTION	Charging monitoring anxiety and requirement to move vehicles post-charge	Current infrastructure design requires active user management (relocating vehicles after charging completes) creating adoption friction comparable to range anxiety	Implementation Goal 2: Transportation Infrastructure Readiness - Strategy 9: Distributed DCFC deployment - Smart Load Management Implementation (Infrastructure Type Prioritization) - Advanced Charger Software Requirements	Kern COG, Municipalities, Private Operators, Utilities

4. EVCS SITING & GAPS ANALYSIS

Kern County stands at an inflection point in its transportation electrification trajectory. PEV adoption in the county has accelerated substantially, with new sales reaching 14.2% market share in Q3 2025, which is a dramatic increase from the baseline of 2019 and evidence that the county has transitioned beyond the early-adopter phase into a period of self-sustaining market expansion. This acceleration is not merely a continuation of incremental growth but rather a qualitative shift in market dynamics, driven by converging factors including expanding PEV model availability, declining PEV costs due to economies and manufacturing scale, increasing EVCS deployment, and broader consumer awareness and acceptance. In the following section we present the economic foundations supporting Kern County's evident tipping point, explore the implications of exponential adoption curves for EVCS planning requirements, and provide data-driven recommendations for strategic investment to capture the opportunities and address the challenges during this period of rapid market transition.

PEV GROWTH PROJECTIONS

According to the California Energy Commission (CEC), there were 12,760 PEVs in Kern County at the end of 2024. The number of PEVs in Kern County has grown since 2011 and is expected to grow at an even faster rate from 2025-2030. As more models become available and as the deployment of charging infrastructure increases, Kern County residents will have more incentive to make the switch to PEVs. These factors, along with others, heavily influenced the growth of the PEV market.

TIPPING POINT – EVIDENCE OF MOMENTUM

Some regional adoption models suggest that once a certain PEV penetration threshold is reached and infrastructure investments accelerate, adoption will begin to grow exponentially. The latest data from the CEC confirms that in Kern County, the market for PEVs is rapidly gaining traction. New PEV sales in the county reached 14.2% in the third quarter of 2025 and 13.3% for the full year. This progression demonstrates a clear acceleration of adoption, signifying that purchase decisions are increasingly driven by underlying market forces rather than only incentives or early-adopter behavior.

Figure 10 shows that light-duty PEV sales in Kern County are approaching the CEC forecasts from the AB2127 legislation[4]. In 2023, sales were 18% less than forecast, but by 2025 that delta was less than 10%, indicating that the rate of PEV sales in Kern County is increasing. The light-duty ZEV population in Kern County is still lower than the CEC forecasts, but if current trends continue, this gap should be closed by 2027. However, the increase in light-duty ZEV sales was undoubtedly affected by the ending of the tax credit by the federal government in September 2025.

[4] https://www.energy.ca.gov/data-reports/reports/electric-vehicle-charging-infrastructure-assessment-ab-2127

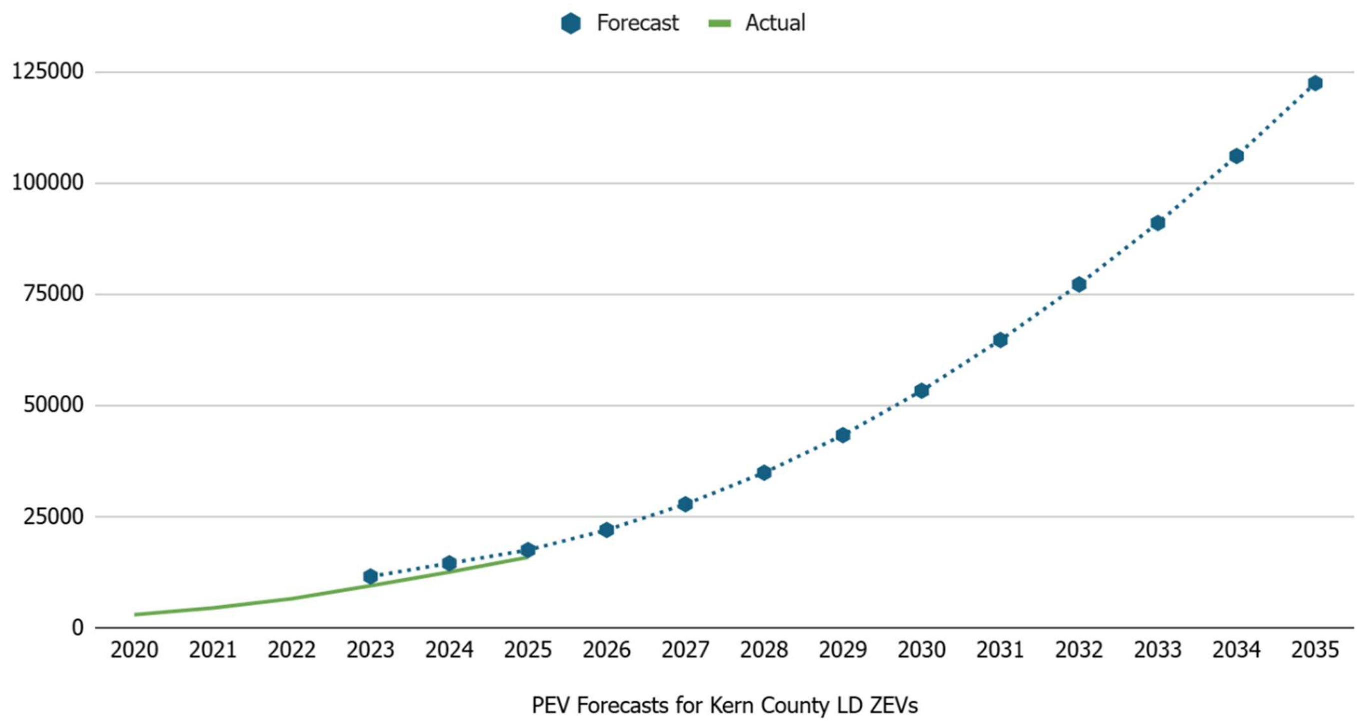

FIGURE 10: LIGHT-DUTY PEV POPULATION IN KERN COUNTY (ACTUAL AND FORECASTS)

Such a rise in market share signals that the county has moved into a phase where infrastructure, consumer awareness, model availability and total cost of ownership are aligning to create self-reinforcing momentum. More drivers recognize the economic benefits of PEVs, including lower fuel and maintenance costs. PEVs also offer improved performance, and as charging infrastructure becomes more visible and accessible, barriers to adoption will continue to fall. With Kern County's new-PEV market share already in the double digits, it is reasonable to expect steeper growth in the near term.

In this context, Kern County has likely crossed a pivotal threshold: where the adoption of electric vehicles begins to compound on itself. With new sales market share surpassing 14% and climbing, each new adopter contributes to the ecosystem, providing greater used EV supply, stronger dealer/service support, broader charging availability, all of which lowers the risk for the next buyer. Thus, the acceleration suggested by the CEC data represents not just growth in penetration, but a shift in the dynamics of the market, transitioning toward faster, more organic expansion.

ECONOMIC THEORIES SUPPORTING KERN COUNTY'S PEV TIPPING POINT AND EXPONENTIAL ADOPTION

California has reached a historic milestone with PEV sales capturing 29.1% of new car purchases in Q3 2025, surpassing all previous records. This achievement suggests that the state, and potentially Kern County as part of this broader market, has crossed multiple critical tipping points where adoption dynamics shift from linear to exponential growth. Extensive economic research supports the existence of these thresholds, beyond which technology adoption accelerates dramatically through self-reinforcing feedback mechanisms.

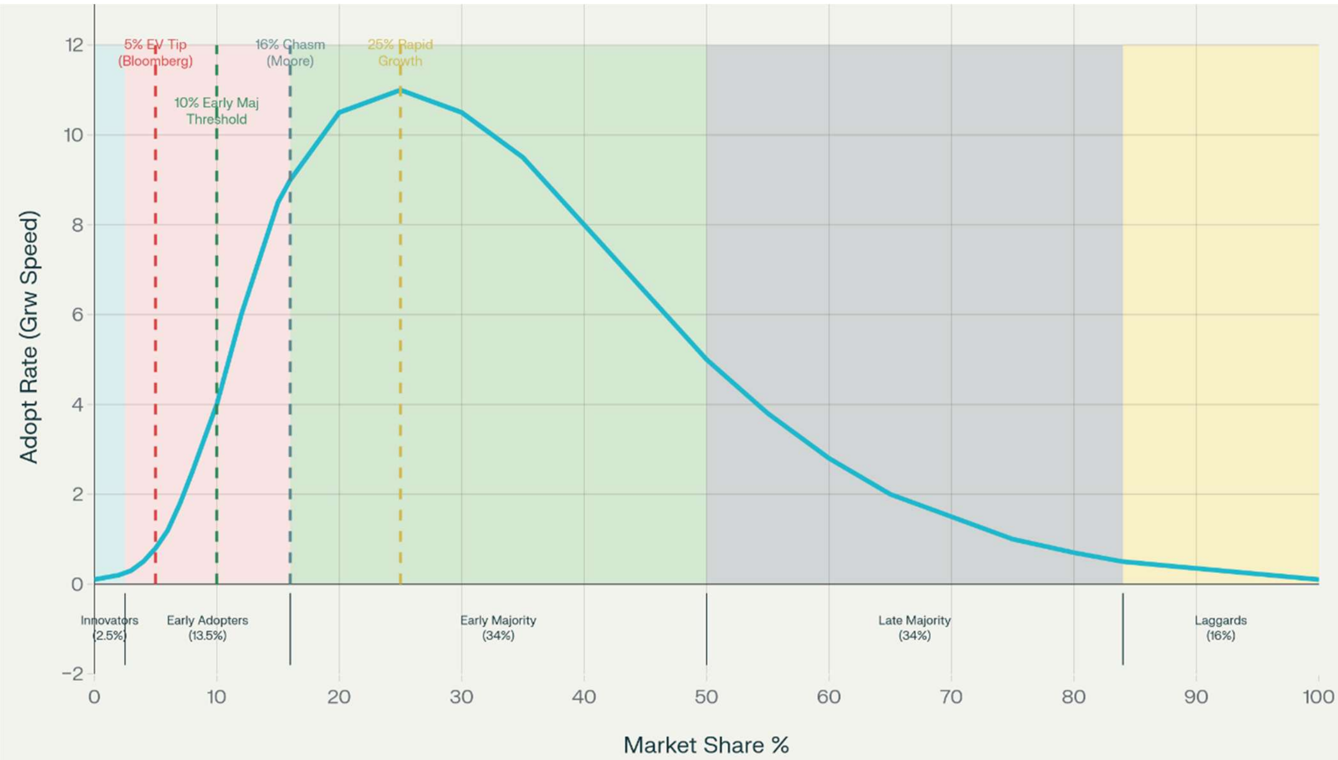

FIGURE 11: ZEV ADOPTION S-CURVE TIPPING POINTS

The S-curve adoption model in Figure 11 shows critical tipping points where ZEV adoption accelerates exponentially, based on Rogers' Diffusion of Innovations theory and Bloomberg's EV market analysis.

FOUNDATIONAL ECONOMIC THEORIES OF TECHNOLOGY ADOPTION THRESHOLDS

Rogers' Diffusion of Innovations and the S-Curve

The most influential framework for understanding technology adoption tipping points comes from Everett Rogers' 1962 Diffusion of Innovations theory, which describes how new technologies spread through populations following a predictable S-shaped curve. Rogers identified five adopter categories that segment the population: Innovators (2.5%), Early Adopters (13.5%), Early Majority (34%), Late Majority (34%), and Laggards (16%). While Rogers identified these general categories, adoption curve shapes vary by innovation; for vehicle technologies, observed distributions show similar patterns but with variation depending on regional characteristics and incentive structures.

The critical insight for understanding tipping points lies in the transition from Early Adopters to the Early Majority, which occurs at approximately 10-15% market penetration. Research across multiple disciplines consistently places this tipping point between 10-25% depending on the specific innovation, with most researchers agreeing that between 7-9% of the early adopters and early majority must accept an idea before it spreads to the entire population. This threshold represents the point where technological preferences rapidly flip from niche to mainstream.

The 5% threshold shows the flattening of initial barriers, including cost, infrastructure availability, and consumer skepticism. The trajectory observed in early-adopting countries shows that EVs can surge from 5% to 25% of new cars in approximately four years. Norway first crossed 5% in 2013 and reached over 80% by 2023, while China crossed 5% in 2018 and followed a similar acceleration pattern. The United States crossed this the 5% threshold in Q1 2022.

Most successful new technologies like televisions, mobile phones and LED light bulbs follow this same S-shaped adoption curve, with sales moving at a crawl in the early-adopter phase before accelerating rapidly once reaching mainstream acceptance.

Geoffrey Moore's "Crossing the Chasm"

Geoffrey Moore's influential work adds nuance to Rogers' framework by identifying a dangerous chasm between Early Adopters (ending at 16%) and the Early Majority. Moore's crucial insight recognizes that Early Adopters are visionaries seeking revolutionary change and competitive advantage, while the Early Majority consists of pragmatists looking for evolutionary improvements and reliable solutions.

The 16% threshold represents the combined total of Innovators (2.5%) and Early Adopters (13.5%). Crossing this chasm requires fundamentally different marketing strategies, product positioning, and value propositions. For PEVs, this means transitioning from appealing to technology enthusiasts and environmentally motivated buyers to addressing the practical concerns of mainstream consumers regarding price, range, charging convenience, and reliability.

Network Effects and Critical Mass Theory

Economic theory on network effects provides a powerful explanation for why adoption accelerates exponentially after certain thresholds. Network effects occur when the value of a product or service increases as more people use it. In the early phases of adoption, incentives to adopt new technology are low, but after reaching critical mass, typically between 10-25%, network effects become significant enough that adoption becomes a dominant strategy.

For PEVs, network effects manifest through multiple channels. As more consumers begin driving PEVs, charging infrastructure becomes more valuable and widespread, reducing range anxiety for potential buyers. The expanding charging network then makes EV ownership more practical for the next wave of adopters, creating a self-reinforcing cycle. At the critical mass point, the value obtained from the technology becomes greater than or equal to the price paid, fundamentally shifting the cost-benefit calculation for consumers.

Research on critical mass thresholds consistently identifies the 10-25% range as the point where network benefits overcome initial adoption barriers. Grajek and Kretschmer's 2008 working paper on critical mass in network technologies confirms that threshold levels vary between 10-25%, with earlier critical mass observed when network effects are stronger.[5]

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[5] https://d-nb.info/1012728064/34

CONSUMER BEHAVIOR AND AUTOMOBILE PURCHASE ECONOMICS

The Bass Diffusion Model for Consumer Products

Frank Bass developed a mathematical model in 1969 specifically to predict consumer product adoption patterns, which has become foundational in understanding automobile purchasing behavior. The Bass model distinguishes between two types of adopters: those influenced by innovation (coefficient p), representing external influences like advertising, and those influenced by imitation (coefficient q), representing word-of-mouth and social influence.[6]

Meta-analysis across 150 diffusion cases shows that the average coefficient of innovation (p) is 0.03, while the coefficient of imitation (q) is 0.38. This 13-to-1 ratio demonstrates that imitation effects are dramatically more powerful than innovation effects in driving technology adoption. For automobiles, this means that as more consumers visibly adopt PEVs in a community, the imitation effect accelerates adoption among peers exponentially.[7]

Peer Effects and Social Contagion in Vehicle Purchases

Research specifically examining PEV adoption has confirmed powerful peer effects in automobile purchasing decisions. Studies using zip code-level PEV registration data demonstrate that visual observation of neighbors' EVs significantly increases adoption probability. A University of Hawaii study exploiting the three-month gap between Tesla orders and deliveries found that geographic proximity to PEV adopters substantially increases subsequent adoption rates.

Consumer behavior research on automobile purchases shows that most buyers fix on a body style early in their decision process and then select within that category using attribute-related criteria. For PEVs, this means that as electric options become available across all popular vehicle segments (sedans, SUVs, pickups, trucks) the peer effect amplifies as potential buyers see familiar vehicle types in electric form among their social networks.

Green peer influence has been shown to positively moderate the relationship between environmental self-identity and EV purchase intention, demonstrating that social networks play a crucial role in accelerating adoption beyond individual preferences. Research on peer effects in product adoption shows that word-of-mouth and social learning create spillover effects across brands and technologies, particularly for products with visible consumption patterns like automobiles.

Consumer Heterogeneity and Threshold Models

Economic models of technology adoption incorporate consumer heterogeneity to explain how different segments adopt at different times based on their price sensitivity, risk tolerance, and benefit perception. Those with higher potential benefits or lower price sensitivity adopt first, while mainstream consumers wait for greater perceived benefits, lower prices, or resolution of uncertainty.

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[6] https://web-docs.stern.nyu.edu/marketing/SNamPaper.pdf

[7] https://www.pymc-marketing.io/en/stable/notebooks/bass/bass_example.html

The heterogeneity model explains why the 5-25% range represents critical thresholds. These are the points where enough early segments have adopted to create visible social proof, reduce prices through economies of scale, and establish infrastructure, thereby convincing the next, larger segment (the Early or Late Majority) that adoption is now rational. Research using Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) shows that perceived usefulness, perceived ease of use, attitudes, and subjective norms all influence EV adoption intentions, with these factors improving as market share increases.[8]

SELF-REINFORCING FEEDBACK LOOPS DRIVING EXPONENTIAL GROWTH

Learning Curves and Cost Reduction Spirals

One of the most powerful mechanisms driving exponential adoption after tipping points is the learning curve effect, where cumulative production drives cost reductions of 10-35% for every doubling of production volume. For battery electric vehicles, this effect has been dramatic: battery costs have declined over 90% since 2010 due to learning economies and economies of scale.[9]

Learning-by-doing improvements occur as manufacturers optimize production processes, discover better materials and techniques, and benefit from supplier specialization. This creates a virtuous cycle: lower costs enable more adoption, which increases cumulative production, which further reduces costs, enabling even more adoption. Research on learning curves in energy technologies shows learning rates (cost reduction per doubling) ranging from 10% to 37% depending on the technology.

For PEVs specifically, learning curves operate across multiple dimensions: battery chemistry and manufacturing, electric motor efficiency, power electronics, vehicle integration, and charging technology. As light-duty PEV production scales, these learning effects create spillover benefits for heavy-duty vehicles, grid storage, and other applications using similar battery technology, further accelerating the feedback loop.[10]

Economies of Scale and Market Expansion

Economies of scale represent a distinct but complementary feedback mechanism where increased production spreads fixed costs across more units and enables more efficient division of labor, lowering per-unit production costs. As PEV production scales from thousands to millions of units annually, manufacturers can justify purpose-built PEV platforms, dedicated battery factories and automated production lines that dramatically reduce costs.

The combination of learning curves and economies of scale creates particularly powerful dynamics. Research on positive tipping points identifies this dual mechanism as central to technology transitions: "Learning by doing improves performance, economies of scale reduce costs, and the spread of new social norms increases acceptability". When these reinforcing feedback loops become

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[8] https://academic.oup.com/book/58889/chapter-abstract/492881763?redirectedFrom=fulltext&login=false

[9] https://www.energy.gov/eere/vehicles/articles/fotw-1354-august-5-2024-electric-vehicle-battery-pack-costs-light-duty

[10] https://fas.org/publication-term/tipping-points/

dominant, deployment of low-carbon solutions increases dramatically while replacing existing technologies.

Infrastructure Co-Evolution and Network Effects

PEV adoption and charging infrastructure development create mutually reinforcing dynamics. More PEVs justify more charging stations, which reduces range anxiety and enables more EV adoption, which justifies further infrastructure investment. This co-evolution represents a positive feedback loop that accelerates once critical mass is reached.

As of 2025, there were hundreds of light-duty PEVs available in California. This large and expanding vehicle variety itself represents a feedback loop: more adoption justifies manufacturer investment in more models across more segments, which appeals to broader consumer preferences, driving further adoption. Research on technology adoption shows that product variety expansion is a key indicator of market maturity and accelerating adoption.[11]

Increasing Returns and Technology Lock-In

Brian Arthur's influential 1989 work on competing technologies with increasing returns provides the theoretical foundation for understanding why adoption becomes self-reinforcing and eventually locks into dominant technologies. Arthur demonstrated that in the presence of increasing returns, where each additional adopter makes the technology more attractive to subsequent adopters, markets can lock into outcomes through path dependence.[12]

For PEVs, increasing returns manifest through multiple channels: network effects (charging infrastructure), learning effects (cost reductions), complementary goods (PEV-specific services, used car markets), and social norms. Arthur's model shows that once increasing returns dominate, "the system locks in one of the two competing technologies" and "the more adopters a technology has, the more attractive it becomes". This creates exponential rather than linear growth dynamics after critical thresholds are crossed.

The Santa Fe Institute's work on Arthur's increasing returns theory notes that "when reinforcing feedback loops become dominant, the deployment of low carbon solutions increases dramatically". This theoretical framework has proven particularly relevant for understanding clean energy transitions, where multiple reinforcing mechanisms operate simultaneously.[13]

EMPIRICAL EVIDENCE FROM EV MARKET TRANSITIONS

Kern County’s PEV Market Trajectory

The PEV market growth in Kern County provides compelling empirical evidence of tipping point dynamics. After years of steady but slow growth, the market has shown clear acceleration patterns consistent with S-curve theory. Full-year 2024 PEV sales market share reached 11.8%, up from

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[1111] https://rmi.org/electric-vehicles-are-on-the-road-to-mass-adoption/

[12] https://fbaum.unc.edu/teaching/articles/Arthur_EJ_1989.pdf

[13] https://www.carbonequity.com/blog/exploring-the-exponential-nature-of-climate-tech-adoption

10.8% in 2023. However, Q3 2025 saw a dramatic surge to 14.2%. It should be noted that a portion of this trajectory can be attributed to the ending of the federal tax credit on September 30, 2025, which pulled forward demand from the coming quarters.

This pattern of steady growth punctuated by acceleration matches the theoretical predictions of tipping point models. The increase from 11.8% to 14.2% in a single year represents the type of nonlinear growth expected once multiple feedback loops become dominant. PEVs sales in Kern County stand at 13.3% for the year (through Q3 2025), up from just 2.4% of annual vehicle sales in 2020. This five-year trajectory shows the classic S-curve acceleration phase following the crossing of early thresholds.

Industry and Consumer Research Findings

Cox Automotive's 2024 Path to EV Adoption Study projects that by 2026-2028, 79% of vehicle shoppers (both new and used) will be considering an electric vehicle. This represents a dramatic shift from current consideration rates and suggests the market is entering the Early Majority phase where EV consideration becomes mainstream rather than niche.[14]

The study also documents important demographic shifts indicating mainstream penetration. While current EV ownership tilts heavily toward luxury and high-earning households, the market is expanding to include Gen Z, multicultural, and less-affluent shoppers. Used EV consideration has increased from 62% of PEV shoppers in 2021 to 77% today, indicating market maturation. These patterns align with diffusion theory's predictions that technology adoption expands from early-adopting segments to increasingly mainstream consumer groups as thresholds are crossed.[15]

McKinsey research on PEV consumer behavior identifies specific tipping points that would tip respondents in favor of electric vehicles, with 35% stating they would purchase a PEV if it cost less than a comparable internal combustion vehicle. As learning curves and economies of scale drive PEV prices toward parity (expected in multiple segments by 2025-2027), this price threshold will shift many consumers into the adoption category.[16]

APPLICATION TO KERN COUNTY

While 80% of California's PEVs are concentrated in 15 coastal counties as of 2025 (Bay Area counties, LA County, Orange County and San Diego County)[17], expansion patterns suggest that adoption is spreading to previously lower-adoption regions like Kern County as infrastructure develops and prices decline.

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[14] https://www.coxautoinc.com/insights-hub/cox-automotive-2024-path-to-ev-adoption-study-suggests-electric-vehicle-consideration-will-surge-in-second-half-of-decade/

[15] https://www.hightechstrategies.com/innovation-adoption-curve/

[16] https://www.mckinsey.com/features/mckinsey-center-for-future-mobility/our-insights/new-twists-in-the-electric-vehicle-transition-a-consumer-perspective

[17] https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/new-zev

The economic theories reviewed above predict that once a region crosses the 5-10% threshold, peer effects, infrastructure development, and social normalization accelerate adoption in a self-reinforcing pattern. Since Kern County has already exceeded the 5-10% range for new PEV purchases, the theoretical frameworks strongly support the interpretation that adoption will accelerate exponentially from this point.

These tipping point dynamics carry direct implications for charging infrastructure planning. Exponential PEV adoption suggests that EVCS deployment must similarly accelerate, not merely increase linearly. Meeting AB 2127's 12,745-port target by 2035 requires investment curves that mirror adoption curves, with deployment accelerating in proportion to market growth. Lack of EVCS during rapid PEV growth creates supply constraints that can impede growth. Conversely, strategic early EVCS investment strengthens the feedback loops driving exponential PEV adoption.

The concentration of California's EV adoption in certain regions initially is consistent with diffusion theory in that adoption begins in areas with favorable conditions (higher incomes, environmental consciousness, early infrastructure) before spreading geographically. Research on technology diffusion shows that geographic spillover effects emerge once threshold adoption levels are achieved in neighboring areas. As California's overall PEV market increases, these geographic spillover effects should accelerate adoption in previously lower-adoption counties like Kern. Los Angeles County, which has the largest PEV population in the state, is adjacent to Kern County, and could be expected to cause spillover PEV adoption in Kern County. Geographic proximity to LA County's high PEV population (493,741 as of 2025) may facilitate adoption through multiple mechanisms: increased visibility of PEV models and brands, greater dealership support spreading across regional boundaries, employee commute patterns between counties, and infrastructure network effects as charging networks expand.

POLICY IMPLICATIONS AND ACCELERATION STRATEGIES

Economic research on positive tipping points identifies specific interventions that can accelerate the transition through critical thresholds by strengthening feedback loops and weakening balancing feedback that maintains the status quo.

The Federation of American Scientists' analysis of positive tipping points recommends setting targets for green technology production and proposing regulatory standards that effectively require increasing adoption percentages. For PEVs, this translates to Zero-Emission Vehicle mandates, which CARB has put in place through the Advanced Clean Cars II (ACC II) regulation to put a roadmap in place for gradual ramp-up of PEVs to 100% by 2035.

Public procurement represents another leverage point, as government vehicle fleet electrification creates anchor demand that justifies infrastructure investment and manufacturing scale-up. The combination of demand-side incentives (purchase rebates, tax credits), supply-side policies (manufacturing incentives, R&D support), and infrastructure investment creates multiple simultaneous pressure points that can accelerate the crossing of tipping points.

Research on threshold-based targeting strategies for technology dissemination shows that selecting strategic early adopters based on network position can significantly increase village or community-level adoption rates. For PEVs, this suggests that programs targeting high-visibility adopters (such as local leaders, businesses with visible fleets, or high-traffic locations for charging infrastructure) can amplify peer effects and social contagion mechanisms.

CONVERGENT EVIDENCE FOR PEV TIPPING POINTS

California's achievement of 29.1% PEV market share in Q3 2025 places the state well beyond all identified tipping points and into the rapid acceleration phase of the S-curve. Kern County's PEV growth rates strongly suggest that PEV adoption will accelerate exponentially now that the county has crossed the 5-15% threshold range for new PEV purchases.

SITING ANALYSIS AND STRATEGIC INVESTMENT FRAMEWORK

Priority Area Validation and Geographic Coverage Assessment

The research team conducted a comprehensive comparative analysis between the Priority Areas identified in the 2019 Kern County Electric Vehicle Charging Station Blueprint and the newly derived Priority Areas generated using DKS Associates' current analytical methodology. This cross-validation process employed updated demographic data, traffic patterns, EV registration statistics, and land use characteristics to assess whether the intervening years had revealed previously unidentified high-priority locations for charging infrastructure deployment.

WHILE NO ENTIRELY NEW GEOGRAPHIC PRIORITY AREAS EMERGED THAT HAD NOT BEEN CAPTURED IN THE ORIGINAL 2019 ASSESSMENT, ENGAGEMENT AND UPDATED ANALYSIS REVEALED EVOLVING LOCAL NEEDS, DEEPER GRANULARITY WITHIN EXISTING PRIORITY AREAS, AND INCREASED URGENCY FOR CAPACITY EXPANSION AND EQUITY-FOCUSED INVESTMENT WITHIN THOSE AREAS. THIS VALIDATION SUGGESTS THAT THE FOUNDATIONAL SPATIAL ANALYSIS CONDUCTED IN 2019 ACCURATELY IDENTIFIED THE CRITICAL NODES FOR INFRASTRUCTURE INVESTMENT BASED ON ENDURING CHARACTERISTICS SUCH AS POPULATION DENSITY, MAJOR TRANSPORTATION CORRIDORS, COMMERCIAL ACTIVITY CENTERS, AND MULTI-MODAL TRANSIT HUBS. HOWEVER, WHILE THE GEOGRAPHIC PRIORITY AREAS REMAIN CONSISTENT, THE URGENCY AND SCALE OF REQUIRED INVESTMENT WITHIN THESE AREAS HAVE EVOLVED SUBSTANTIALLY GIVEN THE ACCELERATING PACE OF PEV ADOPTION IN KERN COUNTY.

Table 10 below lists both the Priority Areas established in the 2019 Blueprint and the new sites requested by Kern County community participants during this project's outreach efforts. The communities in most urgent need of EVCS include Rosamond, Stallion Springs, Pine Mountain Club, Maricopa, Glennville, Cantil, Randsburg, Weldon, Frazier Park and Fellows.

Great circle distance calculations were employed to measure the proximity between each site and the nearest EVCS, representing the shortest possible path over the earth's surface. While this method does not account for actual travel distance by road, it avoids the complexity and variability associated with selecting specific routes, especially in areas where multiple possible roadways or informal connections, such as traversing parking lots, may exist. Road network measurements, by contrast, are limited to navigable roadways and may overlook shorter, more direct paths that users could feasibly take in practice.

TABLE 10: CHARGING DESERTS IN KERN COUNTY (PRIORITY AREAS)

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
17.37	37749 Abbott Dr, Cantil	Park
16.99	26608 Butte Avenue, Randsburg	Park
15.79	2410 Symonds Dr Pine Mtn Club	Park
15.74	10675 CA-155 Glennville	Gas & Mini-Mart
15.69	16321 Askin Dr Pine Mtn Club	USPS
15.69	16331 Askin Dr Pine Mtn Club	Small Street Retail < 5000 sf
15.67	16301 Askin Dr Pine Mtn Club	Church
15.67	16311 Askin Dr Pine Mtn Club	Office Bldgs
15.65	16281 Askin Dr Pine Mtn Club	Church
15.61	16227 Askin Dr Pine Mtn Club	Office Bldgs
15.61	16231 Askin Dr Pine Mtn Club	Lodging
15.61	16310 Mil Portrero Hwy Pine Mtn Club	Auto Repair/Garage
15.60	16225 Askin Dr Pine Mtn Club	Multi-Use
15.60	16233 Askin Dr Pine Mtn Club	Combo Stores & Offices
15.60	16233 Askin Dr Pine Mtn Club	Multi-Use
15.60	16241 Askin Dr Pine Mtn Club	Multi-Use
15.59	16221 Askin Dr Pine Mtn Club	Restaurants
15.58	16218 Mil Potrero Hw Pine Mtn Club	Office Bldgs
15.57	16215 Askin Dr Pine Mtn Club	Multi-Use
15.56	16200 Mil Potrero Hw Pine Mtn Club	Restaurants
15.55	16211 Askin Dr Pine Mtn Club	Multi-Use
15.54	16205 Askin Dr Pine Mtn Club	Office Bldgs
15.53	2513 Freeman Dr Pine Mtn Club	Small Street Retail < 5000 sf
15.44	16225 Aleutian Dr Frazier Park	Recreational
15.39	2524 Beechwood Wy Pine Mtn Club	Community Center

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
14.36	51 20th Street West Rosamond	Multi-Use
14.15	2217 60th St Rosamond	Church
13.66	3600 Imperial Av Rosamond	School
13.51	1483 Sierra Hwy Rosamond	Multi-Use
13.46	1379 Sierra Hwy Rosamond	Office Bldgs
13.38	1447 Sierra Hwy Rosamond	Contractor
13.38	1505 Sierra Hwy Rosamond	Large Street Retail > 5000 sf
13.34	2186 20th St West Rosamond	Church
13.33	1753 Sierra Hwy Rosamond	Multi-Use
13.31	1733 Sierra Hwy Rosamond	Office Bldgs
13.29	2221 20th St West Rosamond	Office Bldgs
12.91	2564 Desert St Rosamond	Church
12.88	1839 Elm St Rosamond	10-20 Unit Complex
12.88	4417 Rosamond Bl Rosamond	Restaurants
12.87	2613 Diamond St Rosamond	Office Bldgs
12.87	2613 Diamond St Rosamond	Small Street Retail < 5000 sf
12.87	2618 Desert St Rosamond	10-20 Unit Complex
12.86	1901 Elm St Rosamond	(31+) Unit Complex
12.85	2641 Diamond St Rosamond	Small Street Retail < 5000 sf
12.83	2651 Diamond St Rosamond	Laundry/Dry Cleaning
12.83	2689 Sierra Hwy Rosamond	Multi-Use
12.82	2654 Diamond St Rosamond	Multi-Use
12.82	2665 Diamond St Rosamond	Office Bldgs
12.81	2660 Diamond St Rosamond	Multi-Use
12.80	1700 Center St Rosamond	Gas & Mini-Mart
12.78	2700 Diamond St Rosamond	Small Street Retail < 5000 sf
12.77	2701 Hwy 14 Rosamond	Restaurants
12.77	2718 Diamond St Rosamond	Small Street Retail < 5000 sf

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
12.77	2727 Diamond St Rosamond	Small Street Retail < 5000 sf
12.76	2184 Poplar St Rosamond	21-30 Unit Complex
12.76	2739 Diamond St Rosamond	Multi-Use
12.75	2787 20th St West Rosamond	Church
12.74	2748 Diamond St Rosamond	Barber/Beauty
12.73	2769 Diamond St Rosamond	Small Street Retail < 5000 sf
12.72	2763 Sierra Hy Rosamond	Parking Lot
12.71	3080 Sedona St Rosamond	(31+) Unit Complex
12.68	1739 Poplar St Rosamond	Small Street Retail < 5000 sf
12.67	2841 B St Rosamond	10-20 Unit Complex
12.67	2850 B St Rosamond	Church
12.65	2861 Diamond St Rosamond	Office Bldgs
12.64	1830 Locust St Rosamond	Office Bldgs
12.64	2862 Diamond St Rosamond	Church
12.64	2873 Diamond St Rosamond	Office Bldgs
12.63	1746 Locust St Rosamond	Church
12.63	2867 Sierra Hy Rosamond	Small Street Retail < 5000 sf
12.62	2881 C St Rosamond	Church
12.62	2915 20th St West Rosamond	Restaurants
12.60	2674 Rosamond Bl Rosamond	Large Street Retail > 5000 sf
12.60	2842 Rosamond Bl Rosamond	Restaurants
12.60	2910 B St Rosamond	10-20 Unit Complex
12.57	2929 Hwy 14 Rosamond	Parking Lot
12.56	2939 Sierra Hy Rosamond	Small Street Retail < 5000 sf
12.55	1264 W Rosamond Bl Rosamond	(31+) Unit Complex
12.55	2949 Sierra Hy Rosamond	Small Street Retail < 5000 sf
12.54	1950 Rosamond Bl Rosamond	Office Bldgs
12.54	2080 W Rosamond Bl Rosamond	Restaurants

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
12.54	2969 Sierra Hwy Rosamond	Auto Sales Used
12.53	2072 Rosamond Bl Rosamond	Gas & Mini-Mart
12.53	2511 Rosamond Bl Rosamond	Restaurants
12.52	1840 Rosamond Bl Rosamond	Small Street Retail < 5000 sf
12.52	1858 Rosamond Bl Rosamond	Office Bldgs
12.52	2978 Diamond St Rosamond	Office Bldgs
12.51	2989 Hwy 14 Rosamond	Auto Sales Used
12.49	2547 Rosamond Bl Rosamond	Large Street Retail > 5000 sf
12.49	2547 Rosamond Bl Rosamond	Restaurants
12.49	3200 Glendower Street Rosamond	Park
12.48	2101 W Rosamond Bl Rosamond	Gas & Mini-Mart
12.47	1014 Orange St Rosamond	Office/Warehouse Multiunit
12.47	2535 Rosamond Bl Rosamond	Multi-Use
12.47	2559 Rosamond Bl Rosamond	Multi-Use
12.45	2925 Rosamond Bl Rosamond	School
12.44	1389 Rosamond Bl Rosamond	Church
12.42	3052 Sierra Hwy Rosamond	Office Bldgs
12.42	4001 Knox Av Rosamond	Restaurants
12.39	3100 W 15th St Rosamond	Church
12.36	3131 Sierra Hwy Rosamond	(31+) Unit Complex
12.32	2712 Elberta St Rosamond	(31+) Unit Complex
12.32	3188 Glendower St Rosamond	School
12.25	1047 Rosamond Bl Rosamond	(31+) Unit Complex
12.23	3275 Glendower St Rosamond	Church
12.13	1071 Royal Palm Dr Rosamond	School
12.10	2584 Felsite Av Rosamond	Church
11.83	3611 Sierra Hwy Rosamond	Church
10.55	8181 Scodie Park Road, Onyx	Park

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
9.05	18100 Lucaya Wy Tehachapi Stallion	Recreational
8.79	28910 Horsethief Dr Tehachapi	Golf Course
8.78	28621 Augusta Wy Tehachapi Stallion	Recreational
8.72	28681 Stallion Springs Rd Tehachapi	Lodging
8.55	28400 Stallion Springs Dr Tehachapi	Recreational
8.51	28401 Stallion Springs Dr Tehachapi	Office Bldgs
8.50	18151 St Andrews Dr Tehachapi	Church
8.03	27821 Stallion Spgs Dr Tehachapi	Multi-Use
7.95	27750 Stallion Springs Dr Tehachapi	Multi-Use
7.90	27725 Stallion Springs Dr Stallion Spr.	Restaurants
7.88	27719 Stallion Springs Dr Tehachapi	Multi-Use
7.12	6488 Fay Ranch Rd Weldon Weldon	Recreational
6.59	300 Park Drive, Frazier Park	Park
6.34	600 Poso St Maricopa	Lodging
6.32	616 Poso St Maricopa	Multi-Use
6.29	601 Poso St Maricopa	Gas & Mini-Mart
6.26	555 California St Maricopa	Restaurants
6.24	525 California St Maricopa	Multi-Use
6.10	California St Maricopa	Small Street Retail < 5000 sf
6.07	530 Main St Maricopa	Small Street Retail < 5000 sf
6.06	600 Main St Maricopa	Church
6.05	604 Main St Maricopa	Fraternal Org
6.03	399 California St Maricopa	Church
6.02	625 Main St Maricopa	Small Street Retail < 5000 sf
6.02	California & Main St Maricopa	Small Street Retail < 5000 sf
6.01	12032 Pauls Pl Weldon Weldon	Combo Residence & Store
6.01	395 California St Maricopa	Church
6.00	354 California St Maricopa	Small Street Retail < 5000 sf

DISTANCE TO NEAREST EVCS	ADDRESS	TYPE OF LOCATION
5.99	352 California St Maricopa	Recreational
5.98	346 California St Maricopa	Restaurants
5.97	330 California St Maricopa	Multi-Use
5.95	312 California St Maricopa	Multi-Use
5.89	260 California St Maricopa	Church
5.86	Hwy 33 & California St Maricopa	Meat Packing
5.74	6700 General Beale Rd Bakersfield	Restaurants
5.55	601 Mocal Road Fellows	Park
5.26	3925 Lake Isabella Bl Lake Isabella	Small Street Retail < 5000 sf

Specific Charger Locations Requested by the Communities

The site list of proposed EVCS locations presented in Table 2 was compiled from extensive community input collected during outreach activities. Residents were invited to identify preferred sites for future charger installations in their neighborhoods and frequent destinations. Because these responses were gathered over a two-year period, some requested locations now have chargers installed, so these sites have been identified in bold text. Table 2 has been sorted by geography to keep the comments clustered together by area.

TABLE 11: COMMUNITY RESPONSES FOR EV CHARGER LOCATIONS

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Tractor Supply Co. parking lot. This is a busy retail area.	2	35.78984	-119.247	0.18
City of Delano police department.	2	35.78868	-119.252	0.14
Easy access to freeway. We need more charging stations between Visalia and Bakersfield. Delano is a great location between both cities.	0	35.78708	-119.251	0.12
Bakersfield College (Delano Campus) parking lot.	1	35.7733	-119.271	0.03
City Hall public parking lot.	3	35.77088	-119.243	0.96
City of Delano transit center.	2	35.77066	-119.249	0.93
City of Delano transit center public parking lot.	2	35.76955	-119.249	0.86

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
City of Delano wastewater treatment facility.	1	35.76926	-119.305	1.87
City of Delano technology center public parking lot.	1	35.76783	-119.26	0.72
City of Delano 11th Avenue Community Center public parking lot.	1	35.76781	-119.261	0.68
City of Delano Ellington Community Center public parking lot.	2	35.7676	-119.252	0.76
Grocery store parking lot.	2	35.76726	-119.245	0.70
City of Delano Jefferson Community Center public parking lot	2	35.76311	-119.242	0.48
Hospital parking lot	1	35.76156	-119.239	0.52
We need Level 3 chargers in the Kern River Valley - in particular the major entrances/exits from the valley. A charger in Kernville would create a very attractive jumping-off location for adventurers travelling into the Sequoia National Monument, Domelands Wilderness, and Golden Trout Wilderness. This would provide great economic development for the area.	1	35.75751	-118.419	0.18
Great location for DC Fast Charger in Delano.	1	35.75609	-119.247	0.05
City of Delano corporation yard	1	35.75094	-119.241	0.06
Kernville is one of Kern County's largest tourism destination towns, attracting visitors from all over the central coast, southern California, San Bernardino and San Diego counties. We are the southern gateway to the Sequoia National Forest Domeland Wilderness, Golden Trout Wilderness, Trail of 100 Giants. Thousands visit to raft, bike, climb, camp. We need a fast charging station.	2	35.75066	-118.421	0.31
Maya Cinema parking lot. This is a busy retail area.	2	35.7492	-119.252	0.21
Perfect place because it's big	3	35.74779	-119.246	0.11
Target Location, Perfect location for large tesla supercharging location. Large Scale location with electrical capabilities. Location paired with shopping will attract locals and travelers.	2	35.74703	-119.254	0.18

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Walmart parking lot. This is a busy retail area.	1	35.74467	-119.248	0.20
A DCFC installation above the junction of SR 14 and US 395 would be really helpful.	0	35.70308	-117.862	0.34
Villa de Caribe Park is good location for chargers.	1	35.68599	-119.237	0.37
Lavendar Farms	0	35.66648	-120.068	10.04
I've been trying to get one here on 178 in Weldon. I own the property and we need one in our area	2	35.65869	-118.29	6.98
China Lake Military Base	0	35.65662	-117.663	0.90
This location is on a well travelled artery, and is close enough to serve westbound travelers heading up mt 99 towards Kernville and/or the national forest. It would also help boost EV adoption in this neighborhood as most residents cannot afford or are otherwise unable to install a charger at their residence.	2	35.64293	-118.368	2.56
Hotel District	0	35.63723	-117.664	0.36
DC fast needed in the Isabella area.	4	35.62734	-118.478	3.79
Blackwell's Corner gas station, market, and diner is reported to be considering an EVCS installation in order to attract or support business. https://www.latimes.com/california/story/2024-02-02/james-dean-blackwells-corner-california#:~:text=lonely%20gas%20station.-,Memories%20of%20him%20are%20fading,town%20of%20Cholame%20in%201955.	0	35.61273	-119.868	3.02
Lake Isabella and Kernville, CA are two of Kern County's largest drawing tourism destination points and tourists are coming from central coast, Los Angeles, San Diego and San Bernardino counties. We need local access to fast chargers for these weekend visitors.	0	35.60589	-118.496	5.31
Great location for DC fast chargers.	1	35.60238	-119.359	1.35
Great location for DC Fast Chargers- new businesses.	2	35.60195	-119.344	0.66

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Lake Isabella and Kernville, CA are two of Kern County's largest drawing tourism destination points and tourists are coming from central coast, Los Angeles, San Diego and San Bernardino counties. We need local access to fast chargers for these weekend visitors.	1	35.60137	-118.482	4.80
Blackwell's Corner https://www.latimes.com/california/story/2024-02-02/james-dean-blackwells-corner-california#:~:text=lonely%20gas%20station.-,Memories%20of%20him%20are%20fading,town%20of%20Cholame%20in%201955.	1	35.58936	-119.873	4.50
Charging stations must be as common as gas stations and as quick or this is a complete waste of time.	1	35.58585	-119.215	3.96
The SR 99 corridor is not served so well as I-5. Although there are DCFCs in shopping centers within Bakersfield, there could be more on the outskirts of town (Panama Rd-Pumpkin Center-Greenfield), or in the smaller towns like Delano, McFarland, Famoso, or Oildale Junction.	0	35.57831	-119.201	3.23
Blackwell's Corner gas station, market, and diner is considering installation of EV charging stations to encourage more visitors to stop and stay awhile. https://www.latimes.com/california/story/2024-02-02/james-dean-blackwells-corner-california#:~:text=lonely%20gas%20station.-,Memories%20of%20him%20are%20fading,town%20of%20Cholame%20in%201955.	0	35.57086	-119.879	5.70
Truck Stop with full services	1	35.52672	-119.186	0.28
Es un buen espacio de fácil acceso, cerca de una vía rápida. (It’s a good space, easy to access, near a busy road.)	1	35.50647	-119.28	0.41
Workplace charging - Wonderful Co	0	35.44272	-119.191	0.05
Close to Hwy 99 and Hwy 65. Near Meadows Field for car rental businesses with EV rentals. Nearby convenience stores and food.	3	35.43913	-119.077	0.06

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Level 2 Charging on the north-eastern side of the near-term parking lot at Meadows Field Airport. Satellite maps show that portion of parking lot mostly empty. Need 15 since people won't be able to unplug if out of town. Fee structure needs to allow people to stay plugged in despite fully charged.	0	35.43809	-119.052	1.32
DC fast charging on north-eastern side of short term parking at airport. Satellite imagery shows that portion of parking lot mostly empty. Need 10 fast charger for people being there less than 1 hour. Should be 350 kW or more.	2	35.43794	-119.052	1.31
There is an empty lot on the right of this church that would be a great place to put several ev charging stations. We can't buy the cars if we don't have a place to charge them!	1	35.43301	-119.021	0.76
Coffee Shop	0	35.42021	-119.018	0.86
This is the last stop before heading up the Kern River Canyon. Placing a charger here would alleviate range anxiety for folks travelling up into our mountain communities.	1	35.40667	-118.86	1.55
Bakersfield College - Workplace Charging	0	35.40619	-118.97	0.25
Coffee Shop	0	35.40435	-119.087	0.57
This is the location of an existing DCFC Rivian Adventure Network installation with a capacity for 9 vehicles at a time. 1 of the 9 spaces accommodates a tow vehicle with a trailer.	0	35.40034	-119.398	0.00
Possibly work with Canyon Hills to add chargers since they already have the infrastructure for solar panels. The members would probably benefit as well as they can charge during services and events.	0	35.39778	-118.916	0.24
Fast charges would be ideal in this area. It is highly trafficked because of the park and seasonal softball games.	1	35.39516	-118.884	0.14
This would be an awesome spot for EV charging. It's easy access for east Bakersfield and for the city-in-the hills residents. Right off of the Hwy. 178.	5	35.39401	-118.915	0.23

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
There are little to no fast charging stations east of Highway 99 in Bakersfield. There is currently an Electrify America station at the Target on Stockdale Highway. EA typically has its stations at big box retailers like Target and Walmart. This location at the Target on Mall View Road would be ideal. There are a lot of parking spaces on the north end of the parking lot that don't get used and would make for a perfect location.	1	35.39397	-118.956	0.19
More workplace charging - Hospital District	0	35.38936	-119.007	0.11
More Workplace Charging - Hospital District	0	35.38764	-119.022	0.21
Workplace Charging - Hospital/Entertainment Dist.	0	35.38478	-119.04	0.21
Workplace Charging - Hospital District	0	35.38439	-118.969	0.91
Workplace Charging/Shopping	0	35.38414	-119.025	0.21
Shopping Center	0	35.38333	-119.114	1.12
Hotel District Shopping Center	0	35.3824	-119.049	0.10
UC Merced Parking Structure	0	35.37764	-119.017	0.10
Nice place to charge adjacent the park.	0	35.37755	-119.009	0.15
Anything in this area to connect the EV infrastructure on the way to mammoth.	1	35.37644	-117.979	16.91
Workplace Charging, County Parking Garage	0	35.37594	-119.017	0.06
Any fast chargers downtown would be fantastic. The number of people visiting Downtown Bakersfield continues to grow, but the ability to charge is limited - with Level 2 chargers at the 18th & Eye parking structure and at City Hall South. For anyone wanting to charge and do some shopping or have a meal, you don't have options for fast charging.	1	35.3752	-119.019	0.06
East Chester Restaurant District	0	35.37499	-119.013	0.06

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Workplace Charging - Superintendent of Schools Parking Garage	0	35.37495	-119.017	0.11
It would be great to have a charger here- its centrally located.	0	35.37281	-119.01	0.12
The library is the perfect place to have chargers. People can charge and go in to use the library, its free services, jump on the free wifi, and grab their next favorite read.	1	35.37254	-119.01	0.10
Randsburg Tourist Stop	0	35.37221	-117.639	16.80
Mercy Hospital	0	35.37207	-119.027	0.15
Please get Tesla chargers here! The closest ones are at the outlets or Enos Ln. Or get fast chargers.	0	35.3718	-119.008	0.15
City Parking/Movie Theater	0	35.37075	-119.013	0.05
Park & Ride	0	35.36962	-119.067	0.60
Public park with lots of parking. Ideal location.	0	35.36786	-119.126	1.10
AAA Office Park	0	35.36744	-119.06	0.24
Medical Office Park	0	35.36276	-119.071	0.65
12 Story Office Building - workplace charging	0	35.36212	-119.061	0.15
Business Park/Hotel	0	35.35887	-119.059	0.32
Starbucks, Workplace Charging, Children's Hospital	0	35.35524	-119.144	1.00
Office Park - Workplace Charging	0	35.35465	-119.11	0.53
Shopping Center	0	35.3543	-119.019	0.62
Workplace Charging - Hospital/CSU Bakersfield	0	35.35245	-119.112	0.58
There are already fast chargers here however, the area is very eerie and not well lit. Improving the area, in my opinion, would help get more use of those chargers.	2	35.35181	-118.914	2.34
Office Bldg. Workplace Charging	0	35.35078	-119.122	0.14

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Mt Vernon would be an excellent location for fast charging - the Park and Ride on the West Bound and new development on the East bound directions offer plenty of opportunity to put charging in	6	35.34992	-118.966	0.41
Kern HS Dist. Office - Workplace Charging	0	35.34285	-119.065	1.17
Hello, we believe this would be a good location to charge as those that live in more rural areas take the back road (Bena etc) and have to do mountain driving which drains mileage	4	35.3404	-118.843	0.02
Office Complex - Workplace Charging	0	35.33816	-119.064	0.85
Need 10-15 level 2 chargers so people can shop for longer than 1 hr and have car top off. This area of parking lot seems less busy. Mall Workers can also set their car to charge while at work.	4	35.33638	-119.038	0.94
Mall does not have DC fast charging. Need 10 fast chargers, each 350 kW or more, so people can top off while shopping.	0	35.33638	-119.038	0.94
Need a good charging area at Ming and Ashe	1	35.33367	-119.073	0.70
I have had two ev vehicles. I am noticing that there are more ev vehicles on the road now than in 2021. It is getting harder to charge your vehicle due to wait times. I have waited an hour just to get a station. Also, half the time the stations dont work well. I use the electrify america stations. There are only 3 locations that have superchargers that I can use.	7	35.30903	-118.93	2.71
Having a fast charger in the Walmart parking lot close to all the stores and restaurants there would be perfect.	2	35.30765	-119.095	0.87
The Penny Bar	0	35.3074	-119.62	10.63
Office Park - Workplace Charging	0	35.29968	-119.099	0.96
Walmart/In and Out Shopping Center	1	35.29763	-119.031	0.42
Fast charger somewhere in the Old River and Panama intersection would be very beneficial.	2	35.29739	-119.11	0.87

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
A fast charger is needed in Panama Ln. It would be great to have it in the same parking lot as Costco.	4	35.29733	-119.058	0.61
Esta area no tiene cargadores cerca. (This area doesn’t have chargers nearby.)	2	35.29628	-118.986	1.18
BLM Jawbone Canyon Visitor Center	0	35.29624	-118.004	11.82
A fast charger is needed on Panama ln	4	35.29527	-119.075	0.99
Murry Farms - Tourist Location	0	35.292	-118.749	6.18
En esta área, pronto tendremos un centro de distribución y tiendas. Sería importante contar con más servicios aquí, ya que para los residentes de esta zona todo queda lejos. ¡Gracias! (In this area, we will soon have a distribution center and shops. It would be important to have more services here, since for the residents of this area everything is far away. Thank you!)	0	35.28192	-119.006	0.38
Need 20 charging units to accommodate commuters and residents with EV in this end of town. This is a dis-advantaged community. Through the Valley CAN project many dis-Advantaged community members aquired EV cars and yet they have to drive clear across town to get a fast charge or wait hours to charge at their home or a place of business that is still a 5 to 10 mile drive to charge.	1	35.27921	-119.023	0.66
Park & Ride	0	35.27335	-119.022	0.86
Lamont has no charging facilities. DC FAST CHARGERS and Level 2s are needed.	0	35.26111	-118.919	0.73
Lamont is a frequent travel byway for people avoiding the 99 and Bakersfield traffic to head to the mountains or east. But there are currently no charging stations locally, limiting the ability both to capitalize on tourism, as well as for local residents to be encouraged to use EVs.	2	35.25924	-118.913	0.56

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Lamont is a frequent travel byway for people avoiding the 99 and Bakersfield traffic to head to the mountains or east. But there are currently no charging stations locally, limiting the ability both to capitalize on tourism, as well as for local residents to be encouraged to use EVs.	0	35.25924	-118.914	0.57
Supporting a network of charging stations along 14 and 395 would drastically increase our ability to bring tourism dollars, and jobs, to East Kern.	1	35.22706	-118.059	8.13
Cesar E. Chavez National Memorial has an existing public parking area, visitor center with restrooms (open during regular business hours), and park grounds for walking while a vehicle is charging.	0	35.22324	-118.559	7.73
There are currently 10 Level Chargers at this site. It is a larger parking lot. It would be great if we could install 2 DCFC in this lot.	0	35.21063	-118.829	0.01
Park and Ride in Tehachapi would be a good location for fast charging	4	35.13282	-118.452	0.11
Near or at Love Travel Stop would be a good place to have charging so those charging would have access to services while charging. Plus, it will support local businesses.	1	35.12689	-118.408	0.31
Shopping Center	0	35.12656	-118.463	0.64
Gloria's Mexican Restaurant	0	35.12578	-118.002	0.87
Hard Rock Casino	1	35.05937	-118.98	4.18
Maricopa and Taft are good places to support travel to or from the Carrizo Plain National Monument.	0	35.05812	-119.402	6.28
New truck stop good site for both commuters to EAFB and those traveling between I-5 and I-40 via SR 58.	0	35.00934	-117.88	3.03
Boron Restaurant/Tourism Dist.	0	34.99897	-117.65	0.56
Chargers needed in Rosamond - Perhaps Kern County Library - Rosamond	0	34.86335	-118.186	12.67

COMMUNITY RESPONSES – EVCS REQUESTS	UP VOTES	LAT	LONG	MILES TO NEAREST EVCS
Don't understand why Caltrans installed a DCFC in the rest area on the southbound side of I-5, but not in the rest area northbound.	1	34.82515	-118.871	0.40
I think there should be a charger either in Frazier Park so the local community can benefit from I-5 commuters stopping and spending their money there or there should be one along the I-5 corridor near Lebec.	0	34.81821	-118.945	3.42
I think there should be a charger either in Frazier Park so the local community can benefit from I-5 commuters stopping and spending their money there or there should be one along the I-5 corridor near Lebec.	2	34.81791	-118.886	0.06

Charging Desert Identification and Equity Implications

To evaluate current EVCS adequacy, the team conducted a spatial analysis overlaying existing charging station locations against identified Priority Areas and population centers throughout Kern County. This mapping exercise revealed significant charging 'deserts,' which we define as areas where residents and travelers lack reasonable access to EVCS where the nearest chargers are more than 6 miles away.

These geographically isolated areas present multiple concerns from both market development and social equity perspectives. First, the absence of nearby charging infrastructure contributes to range anxiety, a well-documented psychological barrier that research has identified as a primary impediment to PEV adoption, particularly among potential buyers in the Early Majority segment. Studies on consumer behavior demonstrate that perceived charging availability significantly influences purchase intentions, with infrastructure gaps creating disproportionate psychological barriers relative to actual usage patterns.

Second, the identified charging deserts exhibit substantial overlap with Disadvantaged Communities (DACs) as defined by California's CalEnviroScreen methodology. These communities typically feature lower median household incomes, higher pollution burdens, and reduced access to transportation alternatives. The geographic distribution of charging infrastructure thus raises environmental justice concerns, as inadequate charging access in lower-income communities could perpetuate transportation inequities and limit the air quality benefits of PEV adoption in areas that would benefit most from reduced tailpipe emissions.

However, infrastructure deployment in these communities requires careful consideration of local preferences and receptivity. Preliminary community engagement suggests that some remote or rural populations may express skepticism or opposition to charging infrastructure based on concerns regarding land use, aesthetics, or perceived alignment with community needs. Consequently, community acceptance must be evaluated alongside technical siting criteria when prioritizing infrastructure investments. Successful deployment strategies will require authentic stakeholder engagement, culturally appropriate outreach, and demonstration of local benefits to build support for infrastructure projects.

COMMUNITY ENGAGEMENT

OVERVIEW AND PARTICIPATION

The community engagement process generated 129 substantive public comments from 35 unique participants between September 2023 and September 2025. The engagement platform recorded 4,543 total visits from 4,252 unique users, with an average engagement time of 1 hour and 36 minutes per visitor, demonstrating meaningful public interest in electric vehicle infrastructure planning.

Community support for submitted comments was strong, generating 121 total upvotes against only 2 downvotes, indicating broad consensus around charging infrastructure needs. While participant sample size is modest, the diversity of stakeholder types and broad geographic representation provide confidence that findings capture salient regional priorities. Peak engagement occurred in September 2025 (48 comments) and October 2023 (41 comments), with sustained participation throughout the engagement period.

STAKEHOLDER COMPOSITION AND GEOGRAPHIC DISTRIBUTION

A significant portion of feedback came from institutional stakeholders representing local government agencies and community organizations:

- **Kern Council of Governments (Kern COG):** 48 comments, primarily consisting of systematic identification of priority sites across the county
- **City of Delano:** 16 comments identifying specific municipal facilities, community centers, and high-traffic retail areas
- **National Park Service:** 9 comments focusing on tourism corridors and recreational destination charging
- **City of Arvin:** 3 comments highlighting underserved community needs
- **City of Wasco:** 3 comments identifying priority commercial and community locations
- **Bakersfield College:** 2 comments emphasizing workplace charging and disadvantaged community access

This institutional participation demonstrates strong local government commitment to charging infrastructure deployment and provides valuable insight into municipally controlled sites suitable for public charging facilities.

GEOGRAPHIC DISTRIBUTION OF COMMENTS

Comments exhibited clear geographic concentration patterns reflecting both population density and infrastructure gaps:

- **Bakersfield Metropolitan Area (62 comments, 48%):**

    - **Central/Downtown Bakersfield:** 46 comments, primarily requesting workplace charging at hospitals, office parks, government facilities, and entertainment/retail districts
    - **Greater Bakersfield:** 16 comments focusing on east Bakersfield, Panama Lane corridor, and underserved residential areas
- **Rural and Small Communities (34 comments, 26%):**
    - **Delano:** 15 comments (highest among small cities), emphasizing community centers, transit facilities, and retail corridors
    - **Kern River Valley (Kernville/Lake Isabella):** 7 comments highlighting tourism infrastructure needs
    - **Lamont/Arvin:** 5 comments noting complete absence of charging facilities
    - **Wasco:** 3 comments identifying commercial corridor opportunities
    - **East Kern (Tehachapi/Mojave/Boron/Rosamond):** 3 comments addressing highway travel corridors
    - **West Kern (Taft/Maricopa):** 1 comment supporting Carrizo Plain National Monument access
- **Unspecified/Regional:** 33 comments addressing county-wide corridors, highway infrastructure, and general policy recommendations

MULTILINGUAL ENGAGEMENT

The engagement process successfully reached Spanish-speaking residents, with 8 comments submitted in Spanish, indicating authentic outreach to Kern County's substantial Latino population. Spanish-language comments focused primarily on underserved neighborhoods in southeast Bakersfield and requests for infrastructure near residential areas with limited existing access.

CHARGER TYPE PREFERENCES AND INFRASTRUCTURE PRIORITIES

Community preferences showed balanced demand across charging speeds:

- **Level 2 Chargers:** 50 requests (38.8%) - Emphasizing workplace charging, community facilities, parks, libraries, and destination charging
- **DCFCs:** 47 requests (36.4%) - Focusing on highway corridors, retail centers, high-utilization sites, and underserved communities
- **General Project Suggestions:** 30 submissions (23.3%) - Providing strategic guidance, corridor recommendations, and policy input

The near-equal split between Level 2 and DCFC requests reflects community understanding that different use cases require different charging speeds: daily workplace and destination charging benefits from Level 2 infrastructure, while long-distance travel, fleet operations, and residents without home charging require fast charging capabilities.

PRIORITY FACILITY TYPES

Analysis of comment content revealed strong preferences for specific facility types:

- **Public and Community Facilities (50 mentions):**
  - Libraries, parks, and recreation centers
  - City halls and government facilities
  - Community centers serving disadvantaged populations
  - Transit centers and park-and-ride facilities
- **Workplace Charging (36 mentions):**
  - Hospital districts and medical office parks
  - Office buildings and business parks
  - Educational institutions (Bakersfield College, CSU Bakersfield)
  - Government agency parking facilities
  - School district offices
- **Retail and Shopping Centers (22 mentions):**
  - Major retailers (Walmart, Target, Costco)
  - Regional shopping malls
  - Grocery stores
  - Cinema and entertainment districts
- **Tourism and Recreation (13 mentions):**
  - Kern River Valley tourist corridors
  - Sequoia National Forest access points
  - National monument visitor facilities
  - Agritourism destinations (lavender farms, agricultural tours)
  - Downtown entertainment districts
- **Highway and Travel Corridors (4 mentions):**
  - Interstate 5 rest areas
  - State Route 99 corridor gaps
  - State Route 58 cross-county connections
  - Truck stops serving commercial vehicles

PRIORITY COMMUNITIES AND CHARGING DESERTS IDENTIFIED

MOST FREQUENTLY MENTIONED UNDERSERVED AREAS

Community input identified specific geographic gaps in charging infrastructure:

1. **Delano (13 comments):** Consistently cited as needing both community-level Level 2 charging and DC Fast Charging to serve residents and travelers between Bakersfield and Visalia. Specific requests included city facilities, retail centers, transit centers, and the Bakersfield College Delano campus.
2. **Kern River Valley - Kernville/Lake Isabella (7 comments):** Identified as a major tourism destination attracting visitors from coastal California, Los Angeles, San Diego, and San Bernardino counties, yet lacking adequate charging infrastructure. Comments emphasized that this gateway to Sequoia National Forest, Golden Trout Wilderness, and Trail of 100 Giants requires both fast charging for tourists and Level 2 charging for local resort/recreation visitors.
3. **Lamont/Arvin (5 comments):** Explicitly described as having "no charging facilities" despite serving as a travel corridor for mountain and eastern Kern County destinations. Comments emphasized both equity concerns (disadvantaged communities) and strategic corridor value.
4. **East Bakersfield and Panama Lane Corridor (multiple comments):** Repeatedly cited as an underserved area despite high residential density and significant retail/commercial development.
5. **East Kern Communities (Tehachapi, Mojave, Boron, Rosamond):** Identified as critical links in State Route 58 and US 395 corridors serving Edwards Air Force Base, China Lake Naval Air Weapons Station, and Mammoth Mountain access.

DISADVANTAGED COMMUNITIES AND EQUITY CONCERNS

Multiple comments explicitly addressed environmental justice dimensions:

- **East Bakersfield:** "This is a dis-advantaged community. Through the Valley CAN project many dis-Advantaged community members acquired EV cars and yet they have to drive clear across town to get a fast charge or wait hours to charge at their home or a place of business that is still a 5 to 10 mile drive to charge."
- **Workplace charging equity:** Comments emphasized that workplace charging addresses residents of multi-unit dwellings and lower-income households who lack access to home charging infrastructure.
- **Rural community access:** Multiple comments noted that rural and agricultural communities face longer distances to existing charging infrastructure, creating barriers to EV adoption in areas that would benefit from reduced fuel costs.

INFRASTRUCTURE UTILIZATION AND CAPACITY CONCERNS

Wait Times and Station Availability

Seven commenters (5.4% of total) explicitly raised concerns about existing infrastructure capacity constraints:

Most upvoted comment (7 upvotes): *"I have had two ev vehicles. I am noticing that there are more ev vehicles on the road now than in 2021. It is getting harder to charge your vehicle due to* *wait times. I have waited an hour just to get a station. Also, half the time the stations don't work well. I use the electrify america stations. There are only 3 locations that have superchargers that I can use."*

This comment reflects a critical threshold observation: as EV adoption increases, first-generation charging infrastructure deployed when adoption was minimal now experiences congestion, validating the need for substantial capacity expansion even in areas with existing charging stations. While only a minority voiced this concern, the intensity of support and specificity indicates real pain points for early adopters and for potential future adopters.

Additional capacity-related comments emphasized:

- Need for 10-15 Level 2 chargers at shopping malls to accommodate extended shopping durations
- Request for 10+ DC Fast Chargers at 350 kW or higher at high-traffic locations
- Recognition that existing 2-4 charger installations are insufficient for growing demand

RELIABILITY AND MAINTENANCE CONCERNS

Multiple comments cited charger reliability issues:

- "Half the time the stations don't work well"
- Safety/lighting concerns at existing installations (12 comments mentioning "eerie," poorly lit, or uncomfortable charging locations)
- Requests to improve existing charging area conditions, not just add new locations

These observations underscore that deployment quantity must be accompanied by operational quality, including reliable data connectivity, adequate lighting, security, maintenance protocols, and site design that encourages use – criteria that should be discussed with bidding EV charging vendors and installation contractors.

TOURISM AND ECONOMIC DEVELOPMENT OPPORTUNITIES

KERN RIVER VALLEY TOURISM INFRASTRUCTURE

The Kern River Valley (Kernville and Lake Isabella) generated passionate advocacy from tourism stakeholders:

Representative quote (2 upvotes): *"Kernville is one of Kern County's largest tourism destination towns, attracting visitors from all over the central coast, southern California, San Bernardino and San Diego counties. We are the southern gateway to the Sequoia National Forest Domeland Wilderness, Golden Trout Wilderness, Trail of 100 Giants. Thousands visit to raft, bike, climb, camp. We need a fast charging station."*

Comments emphasized that Kernville/Isabella serves as:

- Gateway to Sequoia National Forest wilderness areas
- Destination for rafting, mountain biking, rock climbing, camping

- Weekend getaway from Southern California metropolitan areas
- Economic hub reliant on tourism revenue

Strategic insight: Tourism-focused charging infrastructure serves dual purposes—enabling tourist access while supporting local EV adoption by demonstrating charging availability and normalizing electric vehicles in rural communities.

HIGHWAY CORRIDOR AND INTERSTATE COMMERCE

National Park Service representatives and regional travelers identified critical gaps in cross-county travel corridors:

- **State Route 99 corridor:** Underserved relative to Interstate 5, with needs in Delano, McFarland, Famoso, and Oildale Junction
- **State Route 58:** Critical east-west connector between I-5 and I-15/I-40, serving Edwards Air Force Base and Death Valley access
- **US 395 corridor:** High-elevation route serving Owens Valley and Mammoth Mountain, currently lacking charging infrastructure at junction with SR 14

Economic development comment: "Supporting a network of charging stations along 14 and 395 would drastically increase our ability to bring tourism dollars, and jobs, to East Kern."

AGRITOURISM AND DESTINATION CHARGING

Comments identified emerging agritourism destinations as charging opportunities:

- Lavender farms
- Murray Farms tourist location
- Blackwell's Corner (historic James Dean memorial site considering EV charging installation)
- Cesar E. Chavez National Memorial

These locations represent public-private partnership opportunities where charging infrastructure both serves visitors and attracts additional patronage to rural businesses.

WORKPLACE CHARGING AND COMMUTER NEEDS

Hospital and Medical Districts

The Bakersfield hospital district received substantial attention (multiple comments) as a priority workplace charging zone:

- Mercy Hospital
- Multiple medical office parks
- Children's Hospital
- Extended-shift healthcare workers requiring 8-12 hour charging availability

Strategic rationale: Healthcare facilities operate 24/7 with large employee populations, long shift durations ideal for Level 2 charging, and often have available parking capacity and existing electrical infrastructure.

Educational Institutions

Comments identified campus charging needs at:

- CSU Bakersfield
- Bakersfield College (main campus and Delano campus)
- UC Merced Bakersfield center
- Kern High School District offices

Educational institutions present high-impact deployment opportunities: large employee populations, daytime parking availability, student access, and institutional sustainability commitments that align with EV infrastructure investment.

Office Parks and Business Districts

Systematic comments from Kern COG identified numerous workplace charging opportunities:

- Downtown Bakersfield office buildings (including 12-story office tower)
- Suburban office parks along Stockdale Highway, Truxtun Avenue
- Business park clusters near Airport area
- Kern County government facilities
- Educational administration buildings

SPECIFIC HIGH-PRIORITY LOCATION RECOMMENDATIONS

HIGHEST COMMUNITY SUPPORT (≥3 UPVOTES)

1. **City of Delano City Hall public parking (3 upvotes) -** Level 2 charging at municipal facility
2. **East Bakersfield near Hwy 178 (5 upvotes) -** "Easy access for east Bakersfield and city-in-the-hills residents"
3. **Mt. Vernon Park and Ride (6 upvotes) -** DC Fast Charging at I-5/SR 99 interchange with new development opportunities
4. **Valley Plaza Mall area (4 upvotes) -** Multiple requests for 10-15 Level 2 chargers and 10+ DC Fast Chargers
5. **Panama Lane/Costco area (4 upvotes) -** DC Fast Charging at high-traffic retail corridor
6. **Lake Isabella area (4 upvotes) -** DC Fast Charging for tourism infrastructure
7. **East Bakersfield disadvantaged community (3 upvotes) -** "Need 20 charging units to accommodate commuters and residents with EV in this end of town"

GOVERNMENT FACILITY OPPORTUNITIES (CITY-OWNED LAND)

City officials systematically identified municipally controlled sites offering streamlined deployment:

- **Delano (16 government-submitted locations):**
  - City Hall, police department, corporation yard
  - Community centers (Ellington, Jefferson, 11th Avenue)
  - Transit center and public parking lots
  - Technology center, wastewater treatment facility
  - Bakersfield College Delano campus
- **Arvin (3 locations):**
  - Library and park facilities
  - Existing charging station expansion (currently 10 Level 2, requesting 2 DC Fast Chargers)

These shovel-ready opportunities eliminate land acquisition barriers and demonstrate government leadership in infrastructure deployment.

STRATEGIC THEMES AND POLICY IMPLICATIONS

Theme 1: Accelerating Adoption Creates Urgency

The temporal pattern of comments reveals accelerating engagement: 44 comments in 2023, 15 in first half 2024, and 70 in 2025 (through September). This mirrors the PEV adoption acceleration documented in market data and validates that infrastructure needs are intensifying faster than linear projections would suggest.

The highly upvoted comment about wait times increasing from 2021 to present demonstrates that first-generation infrastructure rapidly becomes inadequate as adoption crosses tipping point thresholds.

Theme 2: Geographic Equity and Inclusion

Rural and small-city comments consistently emphasized infrastructure disparities:

- Lamont described as having "no charging facilities" despite strategic corridor location
- East Bakersfield disadvantaged communities driving "clear across town" for charging access
- Kern River Valley tourism economy constrained by charging gaps
- East Kern (Tehachapi/Mojave) communities isolated from charging networks

These geographic gaps align with environmental justice concerns: disadvantaged communities and rural areas face compounding barriers of limited local charging access, longer travel distances, and higher relative costs to reach existing infrastructure.

THEME 3: MULTI-MODAL CHARGING STRATEGY

Community input validated the Blueprint's emphasis on diverse charging types:

- **Workplace Level 2:** Enables employees without home charging to adopt EVs; leverages 8+ hour parking duration
- **Community Level 2:** Serves destination charging at libraries, parks, shopping centers with 2-8 hour visit durations
- **DCFC:** Critical for corridor travel, fleet operations, and residents lacking any other charging access
- **Multi-Unit Dwelling:** Implicit in multiple comments about residents unable to install home chargers

No single infrastructure type adequately addresses all use cases; comprehensive deployment across charging types is essential.

Theme 4: Business Case and Utilization

Comments emphasized high-utilization sites that would support private investment:

- Major retail corridors (Walmart, Target, Costco, shopping malls)
- Airport short-term parking
- Downtown entertainment districts where charging enables extended visits
- Transit centers serving commuters
- Tourism destinations generating consistent visitation

This aligns with the Blueprint recommendation for performance-based incentives: rewarding high-utilization deployments accelerates private capital while public investment addresses equity and coverage gaps.

Theme 5: Community Readiness and Support

The overwhelmingly positive vote ratio (121 upvotes vs. 2 downvotes) and absence of oppositional comments suggests strong community support for charging infrastructure expansion. Only one comment expressed general skepticism ("complete waste of time" unless charging is "as common as gas stations and as quick"), representing frustration with current limitations rather than opposition to infrastructure investment.

The community engagement process successfully captured diverse geographic, demographic, and stakeholder perspectives, including government officials, business owners, tourism advocates, residents, and educational institutions. This broad-based coalition expressing support for accelerated deployment provided the empirical foundation for infrastructure investment priorities aligned with both market demand and equity objectives.

5. IMPLEMENTATION PLAN

STRATEGIC INVESTMENT AND UPDATED GOALS

The 2019 Blueprint established two deployment scenarios to guide EVCS investment:

- **Scenario A (EVI-Pro model):** Originally projected 1,364 charging spaces needed by 2025
- **Scenario B (Population-proportional model):** Originally projected 4,426 charging spaces needed by 2025

The county has made substantial progress—all the Scenario A targets and 83% of Scenario B targets have been achieved by 2025.

TABLE 12 - NUMBER OF EVCS PORTS INSTALLED IN KERN COUNTY AS OF 2025

LEVEL 1 AND LEVEL 2 CHARGERS AT MULTIFAMILY HOUSING	**1,947**
LEVEL 2 CHARGERS AT WORK AND PUBLIC SITES	966
DCFCS FOR LOCAL NEEDS	457
DCFCS FOR LONG DISTANCE	314
TOTAL	**3,684**

Given this progress, the scenario targets have been updated as follows:

- **Updated Scenario A:** Install 4,426 EV charging spaces by 2035 (adopting the previous Scenario B target as the new baseline)
- **Updated Scenario B:** Install 12,745 EV charging spaces by 2035 (aligned with AB 2127 EVCS forecasted requirements)

AB 2127, signed into law in 2018, requires the California Energy Commission to produce biennial statewide assessments of EV charging infrastructure needed to support California's goal of at least 5 million zero-emission vehicles by 2030 and 100% ZEV sales by 2035 under the Advanced Clean Cars II regulation. The 12,745 charging port target for Kern County represents the region's proportional contribution to statewide EVCS installations necessary to avoid supply constraints that could impede PEV adoption acceleration.

The updated Blueprint Implementation framework articulates two overarching objectives advanced through three distinct infrastructure investment types, with references to updated implementation goals and strategies (See Tables 3-6 below) to guide on-going, near-term, mid-term, and long-term actions.

OBJECTIVE 1: ENSURE COMPREHENSIVE EVCS COVERAGE THROUGHOUT THE COUNTY

The first strategic priority involves eliminating charging deserts through strategically deployed EVCS that ensures all interested communities gain equitable access to charging facilities. This objective addresses both range anxiety mitigation and environmental justice. By establishing baseline charging access throughout the county, particularly in DACs, Kern COG removes significant adoption barriers while ensuring that transportation electrification benefits accrue equitably across diverse populations.

Kern County can fill in gaps in Priority Areas by directing EVCS investment to locations identified through the charging desert mapping analysis, including additional EVCS requested by community members in Lamont/Arvin, Delano, Kern River Valley, and east Bakersfield. Performance Metric 2c sets the baseline for chargers installed within 2 miles of Priority Areas, which should be the benchmark for geographic coverage adequacy.

Comprehensive geographic coverage serves multiple functions beyond immediate charging needs. Research on network effects demonstrates that visible charging infrastructure functions as a promotional mechanism, increasing PEV awareness and signaling community support for transportation electrification. The presence of EVCS in previously underserved areas catalyzes adoption through both practical enablement and social signaling, contributing to the peer effects and social contagion mechanisms documented in the economic theory section.

OBJECTIVE 2: INCENTIVIZE MARKET-DRIVEN INVESTMENT IN HIGH-UTILIZATION AREAS

The second strategic priority employs market-based mechanisms to focus EVCS investment in areas demonstrating increasing demand and high utilization rates. This approach recognizes that private capital flows most readily to sites offering favorable economics through high charging session volumes and strong revenue potential. However, market forces alone may not achieve socially optimal deployment patterns or meet AB 2127 timeline requirements.

Strategic Implementation: Goal 4 has been updated to include a recommendation that jurisdictions "consider waiving permit fees for a limited time in desired areas of EVCS investment." This performance-based incentive structure rewards EVCS operators demonstrating sustained high utilization. Operators meeting defined utilization thresholds (e.g. 50% average utilization across installed capacity) could qualify for:

- Expedited permitting processes (Strategy 8) reducing time-to-deployment and associated holding costs
- Fee waivers or reductions for building permits, electrical inspections, and related requirements
- Priority access to available grant funding administered by Kern COG or partner agencies
- Technical assistance through the regional EV expert program (Strategy 10) for site selection, utility coordination, and demand forecasting

Performance Metric 4a, which calls for tracking the time and cost required to issue permits, provides quantitative accountability for this objective. Strategy 9's focus on "high usage hotspots" ensures that capacity expansion occurs where demonstrated demand warrants additional investment, creating reinforcing feedback loops between PEV ownership density and EVCS availability.

COMMUNITY FEEDBACK VALIDATION

Community feedback provides compelling validation for these objectives:

1. **Charging desert elimination:** Lamont, Delano, Kern River Valley, and East Bakersfield explicitly identified as underserved, supporting geographically targeted deployment to ensure comprehensive county coverage.
2. **High-utilization corridors:** Panama Lane, downtown Bakersfield, major retail centers, and State Route 99 corridor consistently mentioned, validating market-responsive investment strategies.
3. **Institutional partnerships:** Extensive government agency participation demonstrates readiness for public facility deployment and streamlined permitting.
4. **Workplace charging priority:** Hospital districts, educational campuses, and office parks identified as high-impact opportunities serving employees without home charging access.
5. **Tourism infrastructure:** Kern River Valley advocacy establishes economic development rationale for recreation-oriented charging deployment.
6. **Capacity expansion:** Existing infrastructure wait times validate need for aggressive deployment timelines matching exponential adoption curves.

EVCS INVESTMENT TYPE PRIORITIZATION TO MEET AB 2127 TARGETS

To help the county achieve its AB 2127 targets, three EVCS investment types should be prioritized.

EVCS INVESTMENT TYPE 1: WORKPLACE AND COMMUNITY LEVEL 2 CHARGING

Level 2 (L2) charging stations operating at 208-240V and delivering 3-19 kW represent the foundational infrastructure layer for routine daily charging. Workplace charging addresses the substantial workforce population lacking home charging access due to multi-unit dwelling residence or housing configurations without private garages. Research demonstrates that workplace charging availability significantly influences PEV adoption decisions, particularly among employees with longer commutes who benefit from daytime charging to extend vehicle range.[18]

Community L2 charging located at retail centers, municipal facilities, parks, libraries, and public destinations where typical dwell times range from 2-8 hours provides critical backup charging for residents without home access while also serving destination charging needs. Current deployment levels of public L2 infrastructure in Kern County fall substantially short of projected 2030-2035 requirements under both Scenario A (4,426 ports) and Scenario B (12,745 ports), necessitating aggressive near-term investment prioritized in Strategy 15's emphasis on locations with appropriate dwell time characteristics.

[18] https://www.energy.gov/sites/default/files/2015/12/f27/105313-5400-BR-0-EERE%20Charging%20Challenge-FINAL_0.pdf

Community Engagement Validation: Public comments strongly supported workplace charging at hospitals, college campuses, and government facilities, as well as destination charging at shopping centers, parks, and community centers. These site types align well with optimal L2 charging use cases.

EVCS INVESTMENT TYPE 2: COMMUNITY DC FAST CHARGING (DCFC)

DCFCs operating at 100 kW or higher enable fast charging that is rapidly becoming comparable to conventional vehicle refueling timeframes. DCFCs are essential for long-distance travel, commercial fleet operations, and consumers lacking home charging access who rely on public infrastructure for primary charging needs. Strategy 9 prioritizes DCFC deployment along major highways (I-5, SR-99, SR-58) with approximately 20-mile spacing to ensure Kern County functions as an enabling link in California's intercity PEV travel network. The I-5 corridor already has abundant DCFC infrastructure such that AB 2127 targets for 2035 have already been achieved. Therefore, the investment priority should shift toward filling gaps in underserved communities.

Urban and suburban community DCFC installations serve functions beyond long-distance travel, with Strategy 15 identifying fast casual dining areas, recreational destinations, and locations with 15- to 60-minute dwell times as priority deployment sites. These installations provide rapid charging for ride-hailing drivers, delivery fleets, and high-utilization applications where charging time directly affects operational economics. DCFC economics require higher capital investment but generate superior revenue potential through energy throughput and premium pricing, making them attractive to private investment under appropriate conditions—particularly when supported by the performance-based incentive framework outlined in Goal 4.

Community Engagement Validation: The Kern River Valley tourism corridor, Panama Lane commercial district, and east Bakersfield disadvantaged communities received multiple requests for DCFC installations, validating the strategic emphasis on community-based fast charging beyond highway corridors.

EVCS INVESTMENT TYPE 3: MULTI-UNIT DWELLING (MUD) CHARGING

Residents of multi-unit dwellings (e.g. apartments, condominiums, shared housing) face unique challenges accessing home charging due to the general absence of private garages with electrical service at rental properties. California's CALGreen building code updates effective January 2023 require new multi-family residential construction to include EV charging infrastructure or EV-ready electrical capacity. These regulatory requirements will systematically address future MUD charging needs by ensuring all new residential construction includes EV-ready infrastructure. AB 2127 targets for MUD charging have already been achieved for 2030, and achieving 2035 targets may require minimal intervention given the building code mandate's progressive impact.

Notably, any private garage with an automated garage door opener via an 110V outlet has the capacity to support Level 1 charging. However, it may be challenging if the only outlet is mounted on the ceiling. There also may be landlord restrictions that could make charging unworkable without a retrofit or infrastructure investment. Nevertheless, the existing electrical infrastructure means many MUD garages could be described as Level 1 charging-capable spaces without any additional investment.

However, the existing stock of multi-unit dwellings represents a substantial gap that building codes cannot address retroactively. Retrofitting MUD properties typically involves electrical upgrades that can be costly. There may also be challenges with HOA coordination and approvals. Therefore, EVCS Investment Type 1 (Workplace and Community L2) and Type 2 (Community DCFC) can address MUD resident needs by ensuring convenient public charging access nearby. MUD residents able to charge at workplace locations or nearby community DCFC during lunch or dinner breaks gain access to the next best thing to home charging, removing a critical adoption barrier.

UPDATED IMPLEMENTATION GOALS AND STRATEGIES

The Implementation Goals and Strategies have been updated to reflect the substantial progress achieved since 2019 and incorporate the revised priorities identified through this Blueprint update.

IMPLEMENTATION GOAL 1: GHG EMISSIONS REDUCTION

This goal supports California's commitment to reduce GHG emissions from the transportation sector, as outlined in the California Air Resources Board's 2022 Scoping Plan for Achieving Carbon Neutrality, which prioritizes vehicle electrification and charging infrastructure deployment to achieve carbon neutrality by 2045. Operationally, this goal is advanced by identifying and prioritizing EVCS installations in currently underserved areas, focusing infrastructure investment on locations where chargers have not yet been deployed. Through strategic geographic deployment, this goal improves air quality countywide and reduces disproportionate pollution impacts on disadvantaged communities (DACs) by reducing GHG emissions and criteria pollutants.

Performance Metrics

- **1a:** Electric Vehicle registration data and electric vehicle market share calculations
- **1b:** GHG emission reductions attributed to electric vehicle miles traveled (eVMT) over time
- **1c:** Total number of charging stations sited in DACs and percentage DAC versus county total

Strategies Supporting Goal 1

Strategy 1 (Ongoing): Develop annual GHG emissions reporting that tracks EVCS kWh utilization and eVMT in Kern County. Publish results publicly on the Kern COG website to maintain transparency and accountability.

Strategy 13 (Mid-term): Develop incentive programs that provide reduced permit costs and expedited processing times for projects that pair onsite renewable energy generation with EVCS installations, maximizing emissions reductions relative to grid electricity carbon intensity.

Strategy 14 (Mid-term): Support public light-duty fleet electrification initiatives, including depot charging investments. Track the number of PEVs deployed in municipal and county fleets, and depot chargers installed to serve these operations.

IMPLEMENTATION GOAL 2: TRANSPORTATION INFRASTRUCTURE READINESS

This goal enhances transportation system performance through strategic charging infrastructure deployment that ensures comprehensive geographic coverage, addresses corridor gaps, and positions Kern County as an enabling link in California's statewide charging network. The updated Scenario A target of 4,426 charging spaces and Scenario B target of 12,745 charging spaces by 2035 establish clear infrastructure benchmarks. Achievement of these goals requires active partnership with regional stakeholders, EVCS hosts, and network operators to track utilization patterns and inform optimized future deployments. Streamlined permitting processes are equally critical to meeting charging space deployment timelines and targets.

Regional Permitting Consistency in Kern County

Historically, Kern County jurisdictions have implemented varying EVCS permitting procedures, creating inconsistency for multi-jurisdictional charging networks. To address this fragmentation and accelerate deployment, this Blueprint recommends that Kern COG develop consistent EVCS permitting guidelines applicable across all member jurisdictions. These guidelines should:

- Adopt GO-Biz model ordinances and checklists for residential, multi-family dwelling, and commercial charging installations
- Establish uniform documentation requirements and application processes, with provision for online submission
- Create consistent timelines for permit review, inspection, and approval across jurisdictions
- Develop standardized coordination protocols with local utilities for interconnection notification and safety review
- Provide permitting and inspection staff training on EV charging equipment specifications, installation standards, and safety requirements

Recommended Implementation Actions

Implementation Goal 4 (EVCS Affordability) Strategy 8 identifies streamlined permitting as a critical lever for reducing deployment timelines and costs. Specific actions include:

- **County leadership role:** Kern County should encourage member agencies to fully comply with AB970 and AB1236 for expedited EVCS permitting
- **Expedited permitting incentives:** Kern COG should encourage member agencies to offer fee waivers or reduced permit processing fees for projects demonstrating high utilization (as discussed in the market-responsive investment framework)
- **Compliance tracking:** GOBIZ currently tracks progress of agencies within California. Compliance can be verified on this website: https://business.ca.gov/industries/zero-emission-vehicles/plug-in-readiness/

These coordinated permitting efforts, aligned with state requirements and leveraging available state-provided resources and tools, will substantially reduce deployment barriers and accelerate EVCS expansion across Kern County.

Performance Metrics

- **2a:** Kern County Electric Vehicle Public Charging Spaces by Zip Code
- **2b:** Regional EVCS utilization rates derived through utilization data from networked chargers
- **2c:** EV range density measured countywide and by city. Priority locations should have chargers installed within 2 miles
- **2d:** NEVI corridor completion status for I-5, SR-99, and SR-58 with DCFC installed at approximately 20-mile spacing

Strategies Supporting Goal 2

Strategy 2 (Ongoing): Work with local non-profits such as Clean Cities Coalition to facilitate knowledge sharing, disseminate best practices, coordinate grant applications, and collectively track progress toward deployment targets.

Strategy 8 (Near-term): Develop expedited, streamlined permitting processes for EVCS installations, including pre-approved equipment lists that reduce review burdens and technical assistance for applicants. Measure average permit processing times and percentage of municipalities with streamlined ordinances to track progress toward reducing regulatory barriers.

Strategy 9 (Near-term): Install public DC Fast Chargers at approximately 20-mile spacing along State Route 99 and State Route 58 to complete NEVI-compliant corridor coverage. Beyond highway corridors, prioritize filling gaps in priority areas identified through the siting analysis, community feedback, as well as high-usage hotspots where utilization data indicates capacity constraints.

Strategy 15 (Mid-term): Expand DCFC deployment to fast casual dining clusters, recreational destinations (such as the Kern River Valley tourism corridor), and locations with 15- to 60-minute typical dwell times including trailheads, parks, dog parks, and convenience stores. These installations serve both destination charging needs and provide rapid charging options for residents lacking home charging access.

Strategy 19 (Long-term): Plan for emerging technologies including autonomous vehicles and inductive (wireless) charging systems that may fundamentally alter infrastructure requirements and deployment patterns in future phases.

IMPLEMENTATION GOAL 3: EV & EVCS AWARENESS AND INCREASED ADOPTION

This goal improves EV and EVCS awareness while advancing adoption among Kern County residents, employees, and travelers through comprehensive education and outreach campaigns. As the county crosses adoption tipping points documented in preceding sections, awareness initiatives play an increasingly important role in accelerating the transition from early adopters to the early majority.

Performance Metrics

- **3a:** Number of public participants reached during dedicated outreach activities
- **3b:** Increased awareness of EV & EVCS measured over the implementation phase (10 years)
- **3c:** Advertising campaign analytics tracking reach, engagement, and conversion metrics

Strategies Supporting Goal 3

Strategy 3 (Ongoing): Develop and maintain a region-specific public website that tracks and reports Blueprint implementation progress, publishes utilization data, maps charging infrastructure, and shares resources. Publish comprehensive EVCS reports semi-annually to maintain stakeholder engagement and accountability.

Strategy 4 (Ongoing): Provide regional EV/EVCS workforce development training for current and future workforce, partnering with community-based organizations, educational institutions, and EVCS industry partners. Track program development, partner engagement, number of trainings conducted, and trainees graduated.

Strategy 5 (Ongoing): Integrate Blueprint recommendations and infrastructure priorities into local planning efforts including General Plan updates, Climate Action Plans, Specific Plans, and development review processes to ensure land use decisions support charging infrastructure deployment.

Strategy 10 (Near-term): Secure grant funding to establish a regional EV expert and technical advisor program that provides consultations to residents, businesses, and fleet operators considering EV adoption or EVCS installation. Track consultation volume and subsequent EVCS installations to measure program effectiveness.

Strategy 11 (Near-term): Develop and implement a regional EV/EVCS awareness campaign targeting consumers, residents, and travelers through multiple media channels. Emphasize outreach to disadvantaged communities to ensure equitable information access. Track total outreach participants and percentage reaching DAC populations.

Strategy 16 (Mid-term): Develop and implement a second regional EV/EVCS marketing campaign building on lessons learned from the initial effort, potentially focusing on specific user segments (e.g., commercial fleets, multi-unit dwelling residents, rural communities) that require tailored messaging.

IMPLEMENTATION GOAL 4: EVCS AFFORDABILITY

This goal reduces the cost and effort required to install EVCS, making infrastructure more accessible through streamlined permitting, expedited utility interconnection processes, and strategic deployment of financial incentives. The updated framework emphasizes waiving or reducing permit fees in areas of desired EVCS investment, particularly locations demonstrating high utilization rates. This goal positions public and private stakeholders to capitalize on unprecedented funding opportunities including the federal NEVI program (providing 80% cost share for corridor charging) and state equity-focused incentives, thereby bringing infrastructure investment to communities and reducing EV operating costs below traditional fuels.

Performance Metrics

- **4a:** Time and cost required to issue permits for charging infrastructure
- **4b:** EVCS installation timeline from application to energization
- **4c:** EVCS incentives and grants issued in Kern County
- **4d:** Average cost of EVCS projects measured over time to track learning curve effects
- **4e:** Average wait time for utility interconnection and make-ready completion

Strategies Supporting Goal 4

Strategy 6 (Ongoing): Aggressively pursue all available funding sources including:

- Federal NEVI Program: 80% federal cost share for corridor DCFC meeting technical standards
- CALeVIP 2.0 / Fast Charge California: State incentives prioritizing disadvantaged communities
- Communities in Charge: Equity-focused program for underserved areas
- Low Carbon Fuel Standard (LCFS) credits: Revenue generation from charging operations
- Utility Programs: SCE Charge Ready, PG&E EV Fleet Program (waitlisted, accepting applications through June 2026)

Note that PG&E's Fast Charge Program and EV Charge Network Program, which funded thousands of chargers statewide, have concluded and are no longer accepting applications.

Strategy 17 (Mid-term): Develop and regularly update regional reports analyzing EVCS business cases, financial models, total project costs, and return on investment under various scenarios. Share findings broadly with potential site hosts, charging network operators, and municipal decision-makers to inform investment decisions and identify optimal deployment strategies.

TABLE 4: ONGOING GOALS AND STRATEGIES OF THE UPDATED BLUEPRINT

STRATEGY	IMPLEMENTATION GOAL	AREA OF IMPACT	ACTION	METRIC	FREQUENCY	LEAD
1	**Goal 1 (GHG Emissions Reduction)**	GHG Emissions Tracking & Reporting	Develop annual GHG emissions reporting share & EVCS kWh utilization in Kern. Public results on Kern COG website	Kern COG Mobility Innovations Tracking Report with any updates to it	Annual & Term Period	Kern COG
2	**Goal 2 (Transportation Infrastructure Readiness)**	Regional Coordination	Work with local non-profits such as Clean Cities Coalition to share lessons learned, best practices, and track metrics	# of participants, # meetings	Semi-annual	Kern COG
3	**Goal 3 (EV/EVCS Awareness & Increased Adoption)**	Blueprint Tracking & Reporting	Continue updating region specific public reporting to track and report on Blueprint progress and share metrics	Post the report with the COG agenda on the web	Every 6 months	Kern COG
4	**Goal 3 (EV/EVCS Awareness & Increased Adoption)**	Workforce Training	Continue the successful efforts to provide EV/EVCS training through the Kern Community College District	Program development, partners, # of trainings & trainees	Annual	CBOs, Kern Community College District
5	**Goal 3 (EV/EVCS Awareness & Increased Adoption)**	Integrate Blueprint into Regional Transportation Plan	Integrate Blueprint into the Regional Transportation Plan	Blueprint citations	Ongoing	All

STRATEGY	IMPLEMENTATION GOAL	AREA OF IMPACT	ACTION	METRIC	FREQUENCY	LEAD
6	**Goal 4 (EVCS Affordability)**	Funding - Grants, Incentives, Credits	Work with local jurisdictions and stakeholders to pursue federal NEVI program and Communities in Charge funding; CALeVIP 2.0/Fast Charge California (DAC priority); SCE Charge Ready Program; LCFS credits; utility fleet programs	Awarded funds & stations installed	As Appropriate	All

TABLE 5: NEAR TERM GOALS AND STRATEGIES OF THE UPDATED BLUEPRINT

STRATEGY	IMPLEMENTATION GOAL	AREA OF IMPACT	ACTION	METRIC	FREQUENCY	LEAD
7	**Goal 2 (Transportation Infrastructure Readiness)**	Streamlined permitting & Local EVCS ordinance	Review Guidebook from GOBIZ[19]	% municipalities with streamlined permitting, average permit processing time	Ongoing	GOBIZ
8	**Goal 2 (Transportation Infrastructure Readiness)**	Regional eVMT Travel coverage (DCFC)	Install public DCFC every 20 miles on I-5, SR-99, and SR-58, gaps in priority areas, high usage hotspots	# DCFCs installed along corridors and gaps in priority areas, charging hotspots	Term period, continue tracking with report to TPPC/Kern COG Board every 6 months	Kern COG/ Municipalities
9	**Goal 3 (EV/EVCS Awareness & Increased Adoption)**	Regional EVCS expert & Tech. advisory program	Partner with non-profit such as the Clean Cities Coalition to apply for grants to develop regional EV expert & Tech. advisory program	# of consultations, # of EVCS installed	Annual	Kern COG
10	**Goal 3 (EV/EVCS Awareness & Increased Adoption)**	EV/EVCS marketing campaign	Partner with a non-profit to apply for grants to create an awareness campaign to educate consumers, residents, travelers	# of outreach participants, % DAC participants	Term period, annual tracking	Kern COG

[19] https://business.ca.gov/wp-content/uploads/2019/12/GoBIZ-EVCharging-Guidebook.pdf

TABLE 6: MID TERM GOALS AND STRATEGIES OF THE UPDATED BLUEPRINT

STRATEGY	IMPLEMENTATION GOAL	AREA OF IMPACT	ACTION	METRIC	FREQUENCY	LEAD
11	**Goal 1 (GHG Emissions Reduction)**	GHG emissions reductions-renewable energy	Develop incentive programs (e.g., reduced permit cost and processing time) for projects that pair onsite renewable energy generation with EVCS	# paired installations, CO2e saved vs energy mix (lbs.)	As appropriate	Municipalities
12	**Goal 1 (GHG Emissions Reduction), Goal 2 (Transportation Infrastructure Readiness)**	Transit and public fleets	Support transit and public fleet electrification. Support depot charging infrastructure development	# of ZEBs in transit fleets; # of ZEVs in public fleets; # of depot chargers installed	Annual	Transit agencies, public fleets
13	**Goal 2 (Transportation Infrastructure Readiness)**	High-Impact project updates	Install public DCFC at fast casual dining clusters, recreational destinations, areas with 15-60 minute typical dwell times (trail heads, parks, etc.)	# new HIPS	Annual	Kern COG
14	**Goal 4 (EVCS Affordability)**	EV/EVCS marketing campaign #2	Develop and run a second Regional EV/EVCS awareness and marketing campaign	# of outreach participants, % DAC participants	Term period, annual tracking	Kern COG
15	**Goal 4 (EVCS Affordability)**	Regional EVCS cost profile	Develop and/or update regional reports on business cases, models, costs, and ROI for EVCS. Share findings with stakeholders	Report on completion & distribution	Annual	Kern COG

TABLE 7: LONG TERM GOALS AND STRATEGIES OF THE UPDATED BLUEPRINT

STRATEGY	IMPLEMENTATION GOAL	AREA OF IMPACT	ACTION	METRIC	FREQUENCY	LEAD
16	**Goal 2 (Transportation Infrastructure Readiness)**	Autonomous vehicles & inductive charging	Plan for the emergence of AV & inductive charging	# AVs, # of inductive chargers	As appropriate	All

TEMPORAL DYNAMICS AND EXPONENTIAL GROWTH CONSIDERATIONS

The preceding analysis of ZEV adoption tipping points and exponential growth dynamics carries direct implications for EVCS investment planning. California has crossed multiple critical adoption thresholds, placing the market in the rapid acceleration phase of the S-curve where adoption rates increase exponentially rather than linearly. Economic theory and empirical evidence from early adopting markets demonstrate that once the 5-25% market share range is achieved, adoption can surge from 25% to majority penetration within 4-6 years. Kern County's Q3 2025 PEV market share of 14.2%, and full-year 2025 share of 13.3%, positions the county within this critical acceleration zone.

This exponential trajectory necessitates equally aggressive infrastructure deployment timelines. Linear infrastructure investment is unlikely to keep pace with exponential demand growth. Meeting AB 2127 targets for 2030 and 2035 will require investment curves that mirror anticipated adoption curves, with EVCS deployment accelerating proportionally to market growth. Performance Metric 2a which involves tracking charging station deployment by charger type, enables monitoring whether deployment rates align with adoption acceleration.

Paradoxically, the same exponential dynamics creating EVCS deployment urgency also provide mechanisms to harness rapid market growth to accelerate infrastructure investment. As EVCS utilization increases with growing PEV populations, the business case for private charging infrastructure investment strengthens substantially. The market-based incentive framework outlined in Goal 4 which rewards high-utilization deployments through expedited permitting and fee waivers, creates feedback loops where successful infrastructure investments attract additional investment, while growing PEV density increases utilization of existing infrastructure, justifying expansion.

Technology learning curves operating across the charging infrastructure ecosystem, including EVCS manufacturing, installation practices, utility interconnection processes, and operational optimization, should reduce deployment costs and timelines as cumulative installations increase. This dynamic is captured in Performance Metric 4d, tracking average EVCS project costs over time. Research on learning curves suggests that aggressive early investment, while requiring higher initial effort and cost, becomes progressively more efficient as the industry scales and learning effects compound, potentially reducing per-port costs by 10-35% per doubling of cumulative installations.[20]

Aggressive action from 2026-2028 will ensure infrastructure keeps pace with surging demand and prevents supply-side bottlenecks.

[20] https://www.carbonequity.com/blog/exploring-the-exponential-nature-of-climate-tech-adoption

6. CONCLUSION

This Blueprint Update demonstrates that Kern County has achieved a critical inflection point in transportation electrification. Since the 2019 Blueprint, the county has made substantial progress—100% of Scenario A targets and 83% of Scenario B targets have been achieved by 2025. More significantly, PEV market share reached 14.2% in Q3 2025 and 13.3% for the year to date, positioning Kern County squarely within the adoption tipping point range where economic theory and empirical evidence indicate exponential rather than linear growth dynamics will prevail.

This Blueprint Update establishes revised infrastructure deployment targets reflecting both achieved progress and accelerated adoption trajectories. Updated Scenario A calls for deployment of 4,426 charging spaces by 2035, while Updated Scenario B calls for 12,745 charging spaces by 2035 to meet AB 2127 statutory targets. These targets align with the California Air Resources Board's 2022 Scoping Plan for Achieving Carbon Neutrality and the Advanced Clean Cars II regulation mandating 100% zero-emission vehicle sales by 2035.

The strategic framework presented in this Blueprint addresses infrastructure deployment across multiple critical dimensions:

- **Geographic Coverage:** Community feedback identified charging deserts in Lamont/Arvin, Delano, Kern River Valley, and portions of east Bakersfield and demonstrated strong stakeholder support for targeted infrastructure investment. Other charging deserts identified with mapping analysis include the communities of Rosamond, Stallion Springs, Pine Mountain Club, Maricopa, Glennville, Cantil, Randsburg, Weldon, Frazier Park and Fellows. Ensuring all communities have access to charging infrastructure within 2 miles addresses both range anxiety and environmental justice imperatives, with disadvantaged communities disproportionately represented among underserved areas.
- **Infrastructure Type Prioritization:** Three priority investment profiles target the deployment gaps most critical to supporting adoption acceleration: Workplace and Community Level 2 charging, Community DC Fast Charging, and Multi-Unit Dwelling resident access through public infrastructure. Notably, certain infrastructure categories have already achieved 2035 targets (I-5 corridor DCFC, new construction MUD charging via CALGreen requirements), enabling strategic reorientation toward remaining gaps.
- **Market-Responsive Investment:** The performance-based incentive framework recommended in Implementation Goal 4 harnesses exponential adoption dynamics by rewarding high-utilization deployments through expedited permitting, fee waivers, and priority grant access. This market-responsive approach creates reinforcing feedback loops where successful infrastructure attracts additional private investment while growing PEV density increases utilization of existing infrastructure.
- **Implementation Framework:** The updated Goals and Strategies framework, organized across ongoing, near-term, mid-term, and long-term timelines, provides clear guidance for systematic progress. Four core implementation goals (GHG Emissions Reduction, Transportation Infrastructure Readiness, EV/EVCS Awareness & Increased Adoption, and EVCS Affordability) address the multifaceted requirements for supporting rapid market transition. Comprehensive performance metrics enable tracking progress against targets and adapting strategies based on demonstrated outcomes.

The critical insight emerging from this Blueprint Update is that the fundamental question has shifted from whether Kern County will transition to electrified transportation to how rapidly this transition will occur and whether infrastructure deployment will enable or constrain adoption.

Economic theory on technology tipping points, validated by empirical evidence from 31+ countries crossing the 5% EV adoption threshold, demonstrates that once critical mass is achieved, adoption accelerates through self-reinforcing mechanisms including learning curves (10-35% cost reduction per production doubling), economies of scale, network effects, peer influence, and infrastructure co-evolution.

Kern County's position crossing the 10-15% adoption threshold documented in Rogers' Diffusion of Innovations theory, and exceeding the 5% Bloomberg tipping point, indicates that multiple reinforcing feedback loops are now active. The convergence of declining vehicle costs approaching price parity, expanding model availability across all vehicle segments, improving charging infrastructure, and strengthening social normalization creates conditions where adoption can surge from current levels to majority penetration within 4-6 years, consistent with trajectories observed in early-adopting markets.

Meeting AB 2127's 12,745 charging space target by 2035 therefore represents not just an aspirational stretch goal but a necessary EVCS baseline to avoid supply constraints that could impede the market transformation already underway. Linear infrastructure investment is unlikely to keep pace with exponential demand growth. EVCS deployment should accelerate proportionally to anticipated adoption curves, with investment intensity increasing over the near-term (2026-2028) and mid-term (2029-2032) periods as the county transitions through the Early Majority adoption phase.

Kern COG and regional stakeholders should invest sustained attention and resources into the actions identified in the Implementation Goals and Strategies framework. The regional EVCS collaborative (Strategy 2) provides a mechanism for ongoing coordination, knowledge sharing, and collective progress tracking. Annual evaluation of progress against Scenario A and Scenario B targets enables adaptive management, with flexibility to accelerate investment in high-performing categories or redirect resources toward lagging deployment types.

The opportunity before Kern County is substantial: strategic infrastructure investment positions the region to capture the economic, environmental, and social benefits of transportation electrification while ensuring equitable access across diverse communities. Aggressive pursuit of federal funding (NEVI program, Communities in Charge), state incentives (CALeVIP 2.0, utility programs), and innovative financing mechanisms (LCFS credits, performance-based incentives), as well as public-private partnerships with established charging companies, can significantly reduce net public investment requirements while accelerating deployment timelines.

The 2019 Blueprint established the foundation. This Blueprint Update documents remarkable progress and charts the path forward through a period of exponential market growth. With comprehensive analysis, data-driven targets, community-validated priorities, and an actionable implementation framework, Kern County is well-positioned to accelerate its transition to sustainable, equitable, and economically beneficial transportation electrification over the next decade.

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APPENDIX

Charger Deployments in Kern County (2025)

Host	Address	Zip Code	DCFC Ports	L1/L2 Ports	Applicant Type	Main Site Use	Site Type	Funding Source
	801 Truxtun Ave, Bakersfield	93301	4	10	Business	Commercial	Hotel	CALeVIP 1.0
	8700 Spectrum Park Way, Bakersfield	93308	4	0	Business	Commercial	Hotel	CALeVIP 1.0
	4467 Us-395, Inyokern	93527	1		Business	Commercial	Gas Station	CALeVIP 1.0
	500 E Steuber Rd, Tehachapi	93561	4	10	Business	Commercial	Hotel	CALeVIP 1.0
	418 W Tehachapi Blvd, Tehachapi	93561	4	10	Business	Commercial	Hotel	CALeVIP 1.0
	719 F St, Wasco	93280		2	Public entity	Public Facility	Parking Lot or Garage	CALeVIP 1.0
	831 N China Lake Blvd, Ridgecrest	93555	10	10	Sole proprietorship	Commercial	Hotel	CALeVIP 1.0
	889 Oak St, Bakersfield	93304	2		Business	Commercial	Hotel	CALeVIP 1.0
	8300 Granite Falls Dr, Bakersfield	93312	4	1	Business	Commercial	Hotel	CALeVIP 1.0
	6141 Knudsen Dr, Bakersfield	93308	4	10	Business	Commercial	Hotel	CALeVIP 1.0
	901 Capital Hills Pkwy, Tehachapi	93561	4	0	Business	Commercial	Hotel	CALeVIP 1.0
	4400 Kirkcaldy Dr, Bakersfield	93306		4	Business	Workplace	Hospital	CALeVIP 1.0
	4550 California Ave, Bakersfield	93309		4	Business	Workplace	Other	CALeVIP 1.0
	100 W California Ave, Ridgecrest	93555		4	Public entity	Workplace	Police/Sheriff Station	CALeVIP 1.0
	9801 Camino Media, Bakersfield	93311		6	Public entity	Workplace	Other	CALeVIP 1.0
	1052 Magellan Drive, Tehachapi	93561		5	Business	Commercial	Hotel	CALeVIP 1.0
	9000 Stockdale Hwy, Bakersfield	93311		4	Public entity	Public Facility	Parking Lot or Garage	CALeVIP 1.0
	1600 18th St, Bakersfield	93301		10	Public entity	Public Facility	Parking Lot or Garage	CALeVIP 1.0
	1501 Truxtun Ave, Bakersfield	93301		4	Public entity	Public Facility	Other	CALeVIP 1.0
	800 14th St, Bakersfield	93301		4	Public entity	Public Facility	Parking Lot or Garage	CALeVIP 1.0
	11200 Stockdale Hwy, Bakersfield	93311		4	Public entity	Public Facility	Other	CALeVIP 1.0
	2821 Brundage Ln, Bakersfield	93304		10	Business	Workplace	Retail Location	CALeVIP 1.0
	1431 N Street, Bakersfield	93301		4	Public entity	Public Facility	Parking Lot or Garage	CALeVIP 1.0
	2900 Buck Owens Blvd, Bakersfield	93308		8	Business	Public Facility	Other	CALeVIP 1.0
	34946 Flyover Ct, Bakersfield	93308		6	Public entity	Public Facility	Other	CALeVIP 1.0
	720 Commerce Way, Shafter	93263		3	Public entity	Workplace	Other	CALeVIP 1.0
	3921 N Sillect Ave, Bakersfield	93308		4	Non-Profit Organization	Workplace	Other	CALeVIP 1.0
	33502 Lerdo Hwy, Bakersfield	93308		10	Public entity	Commercial	Other	CALeVIP 1.0
	4900 California Ave, Bakersfield	93309	2	8	Business	Workplace	Other	CALeVIP 1.0

	600 1st Ave, Bakersfield	93304		10	Business	Commercial	Other	CALeVIP 1.0
	5805 Santa Elena Dr., Arvin	93203		10	Business	Workplace	Other	CALeVIP 1.0
	300 Bear Mountain Blvd, Arvin	93203	6		Business	Commercial	Gas Station	CALeVIP 2.0
	913 W Alene, Ridgecrest	93555	4		Business	Commercial	Business District	CALeVIP 2.0
	5725 Ca-58, Boron	93516	4		Business	Commercial	Gas Station	CALeVIP 2.0
	6300 White Ln, Bakersfield	93309	12		EVSP - Installer/Electrician/Project Manager	Commercial	Retail Location	CALeVIP 2.0
	1400 N Norma St, Ridgecrest	93555	6		EVSP - Installer/Electrician/Project Manager	Commercial	Retail Location	CALeVIP 2.0
	730 Woollomes Ave, Delano	93215	8		EVSP - Network provider	Commercial	Retail Location	CALeVIP 2.0
	154 N. China Lake Blvd, Ridgecrest	93555	5		Business	Commercial	Other	CALeVIP 2.0
	3610 Wible Rd, Bakersfield	93309	4		Business	Commercial	Restaurant	CALeVIP 2.0
	17047 Zachary Ave, Bakersfield	93308	4		Business	Commercial	Gas Station	CALeVIP 2.0
	1668 E. Tehachapi Blvd, Tehachapi	93561	4		Business	Commercial	Gas Station	CALeVIP 2.0
Lost Hills Travel Center	14684 Aloma St, Lost Hills CA 93249	93249	2	2	Public / Highway	DAC Yes		ARV-14-002 – US Green Vehicle Council
Heavy-Duty Yard Demo	12020 Malaga Rd, Arvin CA 93203	93203	4		Fleet Depot / Demonstration	DAC Yes		ARV-14-054 – Transport. Power
Southern California Express Corridor Project	73 Frazier Mountain Park Rd, Lebec CA 93243	93243	2	2	Public / Highway Rest Stop	Low Income (Non-DAC)		ARV-15-061 – ChargePoint
Buttonwillow Travel Center	20673 Tracy Ave, Buttonwillow CA 93206	93206	2	2	Public / Highway	DAC Yes		ARV-15-063 – ChargePoint
Mojave Travel Center	16262 Sierra Hwy, Mojave CA 93501	93501	2	2	Public / Travel Center	DAC Yes		ARV-16-005 – ChargePoint
Bakersfield Travel Center	1631 Comanche Dr, Bakersfield CA 93307	93307	2	2	Public / Highway	DAC Yes		ARV-16-005 – ChargePoint
Mojave Air & Space Port	1434 Flight Line St, Mojave CA 93501	93501	2	2	Public / Transportation Hub	DAC Yes		ARV-16-006 – EV Connect
Inyokern Airport	1669 Airport Rd, Inyokern CA 93527	93527	2	2	Public / Transportation	Non-DAC		ARV-16-006 – EV Connect
Tehachapi Community Site	500 E Steuber Rd, Tehachapi CA 93561	93561		35	Public / Workplace Cluster	Low Income		ARV-16-017 – CALeVIP
Delano Community Site	600 1st Ave, Delano CA 93215	93215		6	Public / Community Lot	DAC Yes		ARV-16-017 – CALeVIP
Buttonwillow Community Site	140 Front St, Buttonwillow CA 93206	93206		4	Public / Community Lot	DAC Yes		ARV-16-017 – CALeVIP
Shafter Community Lot	720 Commerce Way, Shafter CA 93263	93263		2	Public / Workplace	DAC Yes		ARV-16-017 – CALeVIP
Private Workplace	4400 Kirkcaldy Dr, Bakersfield CA 93308	93306		2	Workplace	Non-DAC		ARV-16-017 – CALeVIP
Residential Cluster	8300 Granite Falls Dr, Bakersfield CA 93312	93312		36	Multi-unit Housing	Non-DAC		ARV-16-017 – CALeVIP
Industrial Site	3921 N Sillect Ave, Bakersfield CA 93308	93308		4	Fleet / Workplace	DAC Yes		ARV-16-017 – CALeVIP
Business Park	9801 Camino Media, Bakersfield CA 93311	93311		3	Workplace	Non-DAC		ARV-16-017 – CALeVIP
California Ave Offices	4550 California Ave, Bakersfield CA 93309	93309		2	Workplace	Non-DAC		ARV-16-017 – CALeVIP
California Ave Offices	5016 California Ave, Bakersfield CA 93309	93309		6	Workplace	Non-DAC		ARV-16-017 – CALeVIP
Downtown Civic Lot	1660 S St, Bakersfield CA 93301	93301		6	Public / Municipal	DAC Yes		ARV-16-017 – CALeVIP
Downtown Municipal Lot	2001 Truxtun Ave, Bakersfield CA 93301	93301		6	Public / Municipal	DAC Yes		ARV-16-017 – CALeVIP
Boron Fleet Site	26653 Prospect St, Boron CA 93516	93516	3		Fleet Depot / Industrial	Low Income (DAC Yes)		ARV-20-006 – EnergIIZE (ZE-VIP)
California City Fleet Depot	9700 Redwood Blvd, California City CA 93505	93505	3		Fleet Depot	Low Income		ARV-20-006 – EnergIIZE (ZE-VIP)

Lawson Rd Fleet Depot	1805 Lawson Rd, Bakersfield CA 93307	93307	3		Fleet Depot / Industrial	DAC Yes		ARV-20-006 – EnergIIZE (ZE-VIP)
Fleet Depot	2929 E Brundage Ln, Bakersfield CA 93307	93307	4		Fleet / School Bus Depot	DAC Yes		ARV-20-006 – EnergIIZE (ZE-VIP)
Bakersfield College	1801 Panorama Dr, Bakersfield	93305		8	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Arvin	300 Bear Mountain Blvd, Arvin	93203		6	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Wasco	700 G St, Wasco	93280		4	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Delano	730 Woollomes Ave, Delano	93215		4	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Shafter	720 Commerce Way, Shafter	93263		4	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Ridgecrest	501 W California Ave, Ridgecrest	93555		2	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Tehachapi	500 E Steuber Rd, Tehachapi	93561		4	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of McFarland	401 W Kern Ave, McFarland	93250		4	Public / Community Facility			ARV-20-010 – Kern COG Implementation
City of Bakersfield Transit	2821 Brundage Ln, Bakersfield	93304	4		Public / Community Facility			ARV-20-010 – Kern COG Implementation
Kern Council of Governments	1401 19th St, Bakersfield	93301		2	Public / Community Facility			ARV-20-010 – Kern COG Implementation
CTEC / Bakersfield College / Ridgecrest Training	Various – BEAM EV ARCs & EVEN mobile DCFC unit	93555	4	2	Public / Community Facility			ARV-20-010 – Kern COG Implementation
Delano Community Site	1450 Timmons Ave, Delano CA 93215	93215		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge
Arvin Community Center	1001 Varsity Rd, Arvin CA 93203	93203		9	Public / Municipal	DAC Yes		ZVI-21-006 – Communities in Charge
Bakersfield College (Panorama Dr)	1801 Panorama Dr, Bakersfield CA 93305	93305		10	Public / Education Campus	Non-DAC		ZVI-21-006 – Communities in Charge
Planz Rd Community Site	1700 E Planz Rd, Bakersfield CA 93307	93307		10	Public / Municipal	DAC Yes		ZVI-21-006 – Communities in Charge
McCutchen Rd Community Site	6901 McCutchen Rd, Bakersfield CA 93313	93313		10	Public / Community	DAC Yes		ZVI-21-006 – Communities in Charge
Buena Vista Rd Site	1000 Buena Vista Rd, Bakersfield CA 93311	93311		10	Public / Workplace	Non-DAC		ZVI-21-006 – Communities in Charge
Camino Media Site	9400 Camino Media, Bakersfield CA 93311	93311		10	Public / Business Park	Non-DAC		ZVI-21-006 – Communities in Charge
Truxtun Ave Site	4101 Truxtun Ave, Bakersfield CA 93309	93309		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge
Brundage Ln Navigation Center	1900 E Brundage Ln, Bakersfield CA 93307	93307		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge
Downtown Civic Lot	1515 Eye St, Bakersfield CA 93301	93301		10	Public / Municipal	DAC Yes		ZVI-21-006 – Communities in Charge
Truxtun Ave Downtown Lot	1501 Truxtun Ave, Bakersfield CA 93301	93301		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge

Downtown Civic Cluster	1715 Chester Ave, Bakersfield CA 93301	93301		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge
Downtown Site	2429 19th St, Bakersfield CA 93301	93301		3	Small Business / Residential	DAC Yes		ZVI-21-006 – Communities in Charge
Downtown Community Facility	2101 H St, Bakersfield CA 93301	93301		10	Public / Community Facility	DAC Yes		ZVI-21-006 – Communities in Charge
Wible Rd Site	3610 Wible Rd, Bakersfield CA 93309	93309		26	Public / Retail Center	DAC Yes		ZVI-21-007 – CALeVIP 2.0
Volvo Electrified Corridor	8730 Golden State Hwy, Bakersfield CA 93308	93308	3		Fleet / Freight Depot	Non-DAC		ZVI-22-001 – Volvo Technology of America
Nissan of Bakersfield	2800 Pacheco Rd, Bakersfield	93313	1	3	Public			
Days Inn	14684 Aloma St, Lost Hills	93249	1	0	Public			
Taft City Hall	209 E Kern St, Taft	93268	0	1	Public			
Easy Trip Food Store - Tesla Supercharger	29541 Stockdale Hwy, Bakersfield	93314	10	0	Public / Highway			
Buttonwillow, CA - Tesla Supercharger	20673 Tracy Ave., Buttonwillow	93206	10	0	Public / Highway			
Inyokern Market - Tesla Supercharger	1353 Brown Road, Inyokern	93527	4	0	Public			
Petro Shopping Center - Tesla Supercharger	5602 Dennis McCarthy Drive, Lebec	93243	24	0	Public / Highway			
Anthony's Grill - Tesla Supercharger	16940 CA-14, Mojave	93501	12	0	Public / Highway			
City of Arvin	200 Campus Dr, Arvin	93203	0	10	Public			
Bakersfield Plaza	4310 California Ave., Bakersfield	93309	4	0	Public			
Comfort Inn & Suites - Mojave, CA	1385 CA-58 BUS, Mojave	93501	4	0	Public			
DC CORRIDOR BUTTONW L2	20672 Tracy Ave #102, Buttonwillow	93206	0	2	Public			
STRATA CU DC FAST CHARGER	1717 Truxtun Ave, Bakersfield	93301	1	0	Public			
LOT M LOT M- 1	9001 Stockdale Hwy, Bakersfield	93311	0	2	Public			
CITY HALL STATION 01	128 Rte 58, Tehachapi	93561	0	2	Public			
HAMPTON INN NRT HAMPTON INN ONE	8818 Spectrum Park Way, Bakersfield	93308	0	2	Public			
BMW BAKERSFIELD STATION 01	5400 Gasoline Alley Dr, Bakersfield	93313	0	2	Public			
DC CORRIDOR FRAZIERPARK L2	73 Frazier Mountain Park Rd, Lebec	93243	0	2	Public			
DC CORRIDOR TEHACHAPI L2	9000 Magellan Dr, Tehachapi	93561	0	2	Public			
Countryside Market - Shell	9741 South Enos Lane, Bakersfield	93311	4	0	Public			
AHBD ADVENTIST 8	1609 28th St, Bakersfield	93301	0	1	Public			
MUROCJUSD STATION1	17100 Foothill Ave, North Edwards	93523	0	2	Public			
Mojave Air & Spaceport (Administration)	1434 Flight Line, Mojave	93501	0	2	Public			
The Padre Hotel - Tesla Destination	1702 18th St, Bakersfield	93301	0	3	Public			
Jim Burke Ford	2001 Oak St, Bakersfield	93301	0	1	Public			
Ming MOB	8800 Ming Ave, Bakersfield	93311	0	2	Public			
Stockdale MOB	3501 Stockdale Hwy, Bakersfield	93309	0	2	Public			
Central MOB	3733 San Dimas St, Bakersfield	93301	0	2	Public			
DC CORRIDOR BAKERSFIELD L2	1631 Comanche Dr, Bakersfield	93307	0	2	Public			
DC CORRIDOR BUTTONW DC 3	20672 Tracy Ave #102, Buttonwillow	93206	1	0	Public			

DC CORRIDOR BUTTONW DC 1	20673 Tracy Ave, Buttonwillow	93206	1	0	Public			
DC CORRIDOR BUTTONW DC 2	20672 Tracy Ave #102, Buttonwillow	93206	1	0	Public			
DC CORRIDOR TEJON RANCH L2	5521 Dennis McCarthy Dr, Lebec	93243	0	2	Public			
LOT M LOT M- 2	9001 Stockdale Hwy, Bakersfield	93311	0	2	Public			
DC CORRIDOR FRAZIERPARK DC1	73 Frazier Mountain Park Rd, Lebec	93243	1	0	Public			
DC CORRIDOR TEHACHAPI DC2	9000 Magellan Dr, Tehachapi	93561	1	0	Public			
AHBD ADVENTIST 1	1609 28th St, Bakersfield	93301	0	2	Public			
AHBD ADVENTIST 2	1609 28th St, Bakersfield	93301	0	2	Public			
AHBD ADVENTIST 5	1609 28th St, Bakersfield	93301	0	2	Public			
AHBD ADVENTIST 4	1609 28th St, Bakersfield	93301	0	2	Public			
AHBD ADVENTIST 7	1609 28th St, Bakersfield	93301	0	1	Public			
AHBD ADVENTIST 3	1609 28th St, Bakersfield	93301	0	2	Public			
AHBD ADVENTIST 6	1609 28th St, Bakersfield	93301	0	2	Public			
MUROCJUSD STATION 2	17100 Foothill Ave, North Edwards	93523	0	2	Public			
DC CORRIDOR BAKERSFIELD DC1	1631 Comanche Dr, Bakersfield	93307	1	0	Public			
DC CORRIDOR BAKERSFIELD DC2	1631 Comanche Dr, Bakersfield	93307	1	0	Public			
8852 STATION 9	2701 Driver Rd, Shafter	93263	0	2	Public			
Inyokern	1669 Airport Rd, Inyokern	93527	1	2	Public			
Caltrans Maintenance Station - Delano	805 S Lexington St, Delano	93215	4	0	Public			
DC CORRIDOR INYOKERN L2	4467 US-395, Inyokern	93527	0	2	Public			
DC CORRIDOR INYOKERN DC1	4467 US-395, Inyokern	93527	1	0	Public			
DC CORRIDOR MOJAVE DC1	16262 Sierra Hwy, Mojave	93501	1	0	Public			
DC CORRIDOR MOJAVE DC4	16262 Sierra Hwy, Mojave	93501	1	0	Public			
DC CORRIDOR MOJAVE L2	16262 Sierra Hwy, Mojave	93501	0	2	Public			
DC CORRIDOR MOJAVE DC3	16262 Sierra Hwy, Mojave	93501	1	0	Public			
DC CORRIDOR MOJAVE DC2	16262 Sierra Hwy, Mojave	93501	1	0	Public			
Wasco City Hall	719 F St, Wasco	93280	0	2	Public			
AHBD ADVENTIST 9	1609 28th St, Bakersfield	93301	0	1	Public			
Raju Countryside Market (Lost Hills, CA)	21959 CA-46, Lost Hills	93249	4	0	Public			
HOSPITAL BMH DRS 2	420 34th St, Bakersfield	93301	0	1	Public			
HOSPITAL BMH DRS 1	420 34th St, Bakersfield	93301	0	2	Public			
Shell Gas - Tesla Supercharger	10565 Copus Road, Bakersfield	93313	20	0	Public / Highway			
Kern C. C. District Weill Institute	2100 Chester Ave, Bakersfield	93301	0	4	Public			
Outlets at Tejon - Tesla Supercharger	5701 Outlets at Tejon Parkway, Arvin	93203	76	0	Public			
CITY OF BKRSFLD CITYHALLSOUTH2	1501 Truxtun Ave, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD CITYHALLSOUTH1	1501 Truxtun Ave, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD CITYHALLSOUTH3	1501 Truxtun Ave, Bakersfield	93301	0	1	Public			
Target T2715	11000 Stockdale Hwy, Bakersfield	93311	6	0	Public			

HOSPITAL BMH 02	420 34th St, Bakersfield	93301	0	2	Public			
HOSPITAL BMH 01	420 34th St, Bakersfield	93301	0	2	Public			
HOSPITAL BMH 03	420 34th St, Bakersfield	93301	0	2	Public			
Classic Burgers - Tesla Supercharger	6525 West Inyokern Road, Inyokern	93527	12	0	Public			
DC CORRIDOR TEJON RANCH DC3	5521 Dennis McCarthy Dr, Lebec	93243	1	0	Public			
DC CORRIDOR TEJON RANCH DC1	5521 Dennis McCarthy Dr, Lebec	93243	1	0	Public			
CITY OF BKRSFLD 18TH EYE3	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE2	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE5	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE1	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE10	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE 8	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE4	1600 18th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD 18TH EYE9	1600 18th St, Bakersfield	93301	0	1	Public			
MCFARLAND EV COM EV 2	132 Industrial St, McFarland	93250	0	2	Public			
MCFARLAND EV COM EV 1	132 Industrial St, McFarland	93250	0	2	Public			
MCFARLAND EV COM EV 3	100 Industrial St, McFarland	93250	0	2	Public			
CITY OF BKRSFLD PARK@RVRWALK2	11200 Stockdale Hwy, Bakersfield	93311	0	1	Public			
CITY OF BKRSFLD PARK@RVRWALK3	11200 Stockdale Hwy, Bakersfield	93311	0	1	Public			
CITY OF BKRSFLD PARK@RVRWALK4	11200 Stockdale Hwy, Bakersfield	93311	0	1	Public			
MCFARLAND EV CPE250	100 Industrial St, McFarland	93250	1	0	Public			
MCFARLAND EV CPE250OTH	100 Industrial St, McFarland	93250	1	0	Public			
DC CORRIDOR INYOKERN DC2	4467 US-395, Inyokern	93527	1	0	Public			
City of McFarland	401 W Kern Ave, McFarland	93250	2	3	Public			
CALIFORNIA CORP STATION2	4550 California Ave, Bakersfield	93309	0	1	Public			
CALIFORNIA CORP STATION3	4540 California Ave, Bakersfield	93309	0	1	Public			
CALIFORNIA CORP STATION4	4540 California Ave, Bakersfield	93309	0	1	Public			
CALIFORNIA CORP STATION1	4550 California Ave, Bakersfield	93309	0	1	Public			
CITY OF BKRSFLD AQUATICCENTER2	800 14th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD AQUATICCENTER3	800 14th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD AQUATICCENTER4	800 14th St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD AQUATICCENTER1	800 14th St, Bakersfield	93301	0	1	Public			
Wienerschnitzel - Tesla Supercharger	16246 Sierra Highway, Mojave	93501	12	0	Public			
Buttonwillow Raceway - Tesla Supercharger	24551 West Lerdo Highway, Buttonwillow	93206	16	0	Public / Highway			
Countryside Market & Restaurants - Tesla Supercharger	9741 South Enos Lane, Bakersfield	93311	12	0	Public / Highway			
East Hills MOB	3700 Mall View Rd, Bakerfield	93306	0	2	Public			

Brooks Brothers Interiors	2821 Brundage Lane, Bakersfield	93304	0	9	Public			
Mercedes Benz of Bakersfield	5600 Gasoline Alley Dr, Bakersfield	93313	0	2	Public			
SJVAPCD BAKERSFIELD 1	34946 Flyover Ct, Bakersfield	93308	0	2	Public			
SJVAPCD BAKERSFIELD 3	34946 Flyover Ct, Bakersfield	93308	0	2	Public			
SJVAPCD BAKERSFIELD 2	34946 Flyover Ct, Bakersfield	93308	0	2	Public			
CITY OF BKRSFLD MECHANICS BANK2	1431 N St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD MECHANICS BANK1	1431 N St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD MECHANICS BANK4	1431 N St, Bakersfield	93301	0	1	Public			
CITY OF BKRSFLD MECHANICS BANK3	1431 N St, Bakersfield	93301	0	1	Public			
BOTS TC 1-2 EASTSIDE	224 W F St, Tehachapi	93561	0	2	Public			
BOTS TC 3-4 EASTSIDE	224 W F St, Tehachapi	93561	0	2	Public			
BOTS TC 5-6 EASTSIDE	224 W F St, Tehachapi	93561	0	2	Public			
BOTS TC 7-8 EASTSIDE	224 W F St, Tehachapi	93561	0	2	Public			
TPS-TEHACHAPI TPSTEHACHAPI2	1052 Magellan Dr, Tehachapi	93561	0	1	Public			
TPS-TEHACHAPI TPSTEHACHAPI1	1052 Magellan Dr, Tehachapi	93561	0	2	Public			
TPS-TEHACHAPI TPSTEHACHAPI3	1052 Magellan Dr, Tehachapi	93561	0	2	Public			
BM BAKERSFIELD 2	3201 Cattle Dr, Bakersfield	93313	0	2	Public			
Spectrum Fairfield Inn & Suites	8700 Spectrum Park Way, Bakersfield	93308	5	0	Public			
7-ELEVEN, INC. 32257 BAKER DC4	5203 Olive Dr, Bakersfield	93308	1	0	Public			
7-ELEVEN, INC. 32257 BAKER DC2	5203 Olive Dr, Bakersfield	93308	1	0	Public			
7-ELEVEN, INC. 32257 BAKER DC1	5203 Olive Dr, Bakersfield	93308	1	0	Public			
Baymont by Wyndham Tehachapi	500 Steuber Rd, Tehachapi	93561	4	10	Public			
Surestay Hotel Best Western Tehachapi	418 W Tehachapi Blvd, Tehachapi	93561	4	10	Public			
The Workz Mojave - Tesla Supercharger	16862 CA-14, Mojave	93501	12	0	Public / Highway			
UNION LOCAL#428 IBEW EV #4	3921 Sillect Ave, Bakersfield	93308	0	2	Public			
UNION LOCAL#428 IBEW EV #3	3921 Sillect Ave, Bakersfield	93308	0	2	Public			
UNION LOCAL#428 IBEW EV #2	3921 Sillect Ave, Bakersfield	93308	0	2	Public			
UNION LOCAL#428 IBEW EV #1	3921 Sillect Ave, Bakersfield	93308	0	2	Public			
Mojave Thai Cuisine - Tesla Supercharger	16870 CA-14, Mojave	93501	20	0	Public			
PARK SQUARE PS EV STATION 1	11325 Park Square Dr, Bakersfield	93311	0	2	Public			
PARK SQUARE PS EV STATION 2	11325 Park Square Dr, Bakersfield	93311	0	2	Public			
Denny's - Tesla Supercharger	I-5 CA-46, Lost Hills	93249	20	0	Public / Highway			
NBT NBT PARKING LOT	19651 Industry Parkway Drive, Bakersfield	93308	0	1	Public			
DoubleTree by Hilton Bakersfield - Tesla Supercharger	3100 Camino Del Rio Court, Bakersfield	93308	20	0	Public			
US Bank Ridgecrest	144 N China Lake Blvd, Ridgecrest	93555	1	0	Public			
LOVE'S 755 - CA #755 DC2	27201 Boron Frontage Rd N, Boron	93516	1	0	Public			

LOVE'S 755 - CA #755 DC3	27201 Boron Frontage Rd N, Boron	93516	1	0	Public			
LOVE'S 755 - CA #755 DC1	27201 Boron Frontage Rd N, Boron	93516	1	0	Public			
LOVE'S 755 - CA #755 L2	27201 Boron Frontage Rd N, Boron	93516	0	1	Public			
Self - Help Enterprises Caliente Creek	909 Meyer St, Arvin	93203	0	6	Public			
Self - Help Enterprises Rancho Lindo	9023 Camino la Jolla, Lamont	93241	0	4	Public			
Self - Help Enterprises Sunrise Villas	1600 Poplar Ave, Wasco	93280	0	4	Public			
Self - Help Enterprises Villa Hermosa	1500 Poplar Ave, Wasco	93280	0	2	Public			
TownePlace Suites By Marriott Bakersfield West	8300 Granite Falls Dr, Bakersfield	93312	8	1	Public			
Arvin Park and Ride Station	120 Plumtree St, Arvin	93203	2	3	Public			
The Wonderful Nurseries	27920 McCombs Rd, Wasco	93280	0	6	Public			
Pandol Bro	33150 Pond Road, Delano	93215	0	2	Public			
WPA Lost Hills	13646 CA-33, Lost Hills	93249	0	20	Public			
Wonderful Orchards Cawelo	6801 Lerdo Hwy, Shafter	93263	0	9	Public			
Arvin Park & Ride	120 Plumtree St, Arvin	93203	0	3	Public			
Arvin Park & Ride DCFC	120 Plumtree St, Arvin	93203	2	0	Public			
City Of Arvin	416 4th Ave, Arvin	93203	0	10	Public			
WattEV - Bakersfield (HWY65)	18836 CA-65, Bakersfield	93308	50	0	Public			
CALIFIA CALIFIA 1	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 5	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 6	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 7	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 8	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 3	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 2	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 9	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 4	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
CALIFIA CALIFIA 10	33502 Lerdo Hwy, Bakersfield	93308	0	1	Public			
US Bank Wasco	1049 7th St, Wasco	93280	1	0	Public			
DVFCU DVFCU	100 Ward Ave, Ridgecrest	93555	0	2	Public			
DELANO CHEVY STATION 3	600 1st Ave, Delano	93215	0	1	Public			
DELANO CHEVY STATION 4	600 1st Ave, Delano	93215	0	1	Public			
DELANO CHEVY STATION 5	600 1st Ave, Delano	93215	0	1	Public			
DELANO CHEVY STATION 6	600 1st Ave, Delano	93215	0	1	Public			
BILWRIGHT SERVICE CENTER	5700 Gasoline Alley Drive, Bakersfield	93313	0	1	Public			
Towne Centre - Tesla Supercharger	1219 Olive Dr, Bakersfield	93308	12	0	Public			
WASCO STATION 1	746 8th St, Wasco	93280	1	0	Public			
HOSPITAL L&D DRS 1	420 34th St, Bakersfield	93301	0	2	Public			

HOSPITAL L&D DRS 2	420 34th St, Bakersfield	93301	0	2	Public			
HOSPITAL BMH EMPL1	420 34th, Bakersfield	93301	0	2	Public			
HOSPITAL BMH EMPL 3	420 34th, Bakersfield	93301	0	2	Public			
HOSPITAL BMH EMPL2	420 34th, Bakersfield	93301	0	2	Public			
MUROCJUSD MUROC2STATION2	1585 Forbes Ave, Edwards Air Force Base	93523	0	2	Public			
MUROCJUSD MUROC2STATION1	1585 Forbes Ave, Edwards Air Force Base	93523	0	2	Public			
Bakersfield Marriott	801 Truxtun Ave, Bakersfield	93301	8	11	Public			
Wonderful Industrial Park	4050 7th Standard Rd, Shafter	93263	0	21	Public			
RICHLAND 50KW ABB STATION 1	511 Central Avenue, Shafter	93263	1	0	Public			
Flying J 613	17047 Zachary Ave, Bakersfield	93308	4	0	Public			
Residence Inn By Marriott Bakersfield West	8312 Espresso Dr, Bakersfield	93312	0	4	Public			
4900 California Ave	4900 California Ave, Bakersfield	93309	0	10	Public			
Taft Best Western	203 S 6th ST, Taft	93268	0	4	Public			
Motor City GMC	3101 Pacheco Road, Bakersfield	93313	2	6	Public			
Motor City Lexus	5101 Gasoline Alley Drive, Bakersfield	93313	4	0	Public			
West Yard Chargers	1920 Golden State Ave, Bakersfield	93301	0	8	Public			
Tony's Pizza	10701 CA-178, Bakersfield	93306	2	2	Public			
Flying J 1094	1668 E. Tehachapi Blvd, Tehachapi	93561	4	0	Public			
Buttonwillow, CA	20673 Tracy Avenue, Buttonwillow	93206	9	0	Public			
Inyokern, CA	6525 West Inyokern Road, Inyokern	93527	6	0	Public			
Inyokern, CA - Classic Burger	6525 West Inyokern Road, Inyokern	93527	0	2	Public			
5016 CAL AVE W 1	5016 California Avenue, Bakersfield	93309	0	1	Public			
5016 CAL AVE W2ADA	5016 California Avenue, Bakersfield	93309	0	1	Public			
3748 Renfro Rd	3748 Renfro Rd, Bakersfield	93314	0	2	Public			
Almond Village	14869 Lamberson Ave, Lost Hills	93249	0	5	Public			
Baker Street Village	1015 S Baker St, Bakersfield	93305	0	4	Public			
Benton Park Cottages	500 Hughes Ln, Bakersfield	93304	0	8	Public			
Douglas Street Apartments	517 Douglas St, Bakersfield	93308	0	3	Public			
Greenfield Housing	403 Boomerang Dr, Bakersfield	93307	0	4	Public			
Kern County Superior Court-Lamont	12022 Main St, Lamont	93241	0	1	Public			
Mountain View Village	11450 Main St, Lamont	93241	0	6	Public			
Patel Properties	4004 Panama Ln, Bakersfield	93313	0	4	Public			
Residences At East Hill	3345 Bernard St, Bakersfield	93306	0	14	Public			
Village Park Apartments	2300 R St, Bakersfield	93301	0	3	Public			
GFUSD GU 2	2200 Faith Avenue, Bakersfield	93304	0	2	Public			
GFUSD GU 1	2200 Faith Avenue, Bakersfield	93304	0	1	Public			
GFUSD GU 4	7901 Monitor Street, Bakersfield	93307	0	1	Public			

GFUSD GU 3	7901 Monitor Street, Bakersfield	93307	0	1	Public			
One Stop Market	7990 California City Blvd, California City	93505		1	Public			
California City Blvd	8046 California City Blvd, California City	93505		2	Public			
California City Correctional Facility	22844 Virginia Blvd, California City	93505		7	Public			
Tejon Pass Rest Area SB	111 Landfill Road, Lebec, CA	93243		4	Public			
Jack in the Box	72 Frazier Mountain Park Road, Lebec	93243		2	Public			
7-Eleven	51526 Ralphs Ranch Rd, Lebec	93243		38	Public			
ARCO	201 Frazier Mountain Park Rd Lebec	93243		1	Public			
Panorama Towing Service	20621 South St, Tehachapi	93561		4	Public			
Lake Isabella RV Park	11936 Highway 178, Lake Isabella	93240		1	Public			
Rivernook Campground	14001 Sierra Way, Kernville	93238		2	Public			
USFS Kern River Ranger Station	11380 Kernville Rd, Kernville	93238		1	Public			
Camp Kernville	24 Sirretta St, Kernville	93238		1	Public			
Masterpiece Parke	1610 Jenkins Rd, Bakersfield	93314		45	Multi-unit Housing			
17th Pl Townhome	1001 18th St, Bakersfield	93301		43	Multi-unit Housing			
The Grove Apts	4801 Fruitvale Ave, Bakersfield	93308		153	Multi-unit Housing			
Old RIver PL	9701 Sherborne Ave, Bakersfield	93311		498	Multi-unit Housing			
Hacienda Court	150 Miguel St, Ridgecrest	93555		43	Multi-unit Housing			
Camelot Square	5400 Planz Rd, Bakersfield	93309		62	Multi-unit Housing			
Highland Oaks/Arcadia	5112 Fairfax Rd, Bakersfield	93306		176	Multi-unit Housing			
The Place off Coffee	1610 Jenkins Rd, Bakersfield	93314		42	Multi-unit Housing			
Jasmine Parke	8400 White Rock Dr, Bakersfield	93312		320	Multi-unit Housing			
Oak Park	4401 N Fruitvale Ave, Bakersfield	93308		76	Multi-unit Housing			
The Villas at Scenic river	4015 Scenic River Ln, Bakersfield	93308		56	Multi-unit Housing			
Shadowridge Apts	7000 College Ave, Bakersfield	93306		56	Multi-unit Housing			
Cielo at Calloway	7631 Calloway Drive, Bakersfield	93314		30	Multi-unit Housing			
The Reserve Apartment Homes	11200 Harris, Bakersfield	93311		27	Multi-unit Housing			
918 at Eastchester	918 20th St, Bakersfield	93301		10	Multi-unit Housing			
The Cue	1800 Q St, Bakersfield	93301		0	Multi-unit Housing			
Oak Park	4401 N Fruitvale Ave, Bakersfield	93308		36	Multi-unit Housing			
Sablewood Gardens Apartments	2600 Sablewood Dr, Bakersfield	93314		10	Multi-unit Housing			
Grapevine Villa	775 S Belmont St, Delano	93215		228	Multi-unit Housing			
CSU Bakersfield	9001 Stockdale Hwy, Bakersfield	93311		4	Public			
Tesla Supercharger Lost Hills	22422 CA-46, Lost Hills	93280	164		Public / Highway			
Studio 6 Delano	2231 Girard St, Delano	93215	0	14	Public			
	TOTAL		771	2,913				
	GRAND TOTAL # of PORTS			**3,684**				