INYO COUNTY ELECTRIC VEHICLE CHARGING INFRASTRUCTURE NETWORK PLAN

DRAFT

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DKS

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS AND TERMS

ACRONYM	TERM	DESCRIPTION
AC	Alternating current	Electric current that periodically reverses its direction and changes its magnitude continuously with time, in contrast to DC (direct current). The majority of the electric grid operates using AC including Level 2 chargers.
ACF	Advanced Clean Fleets	A rulemaking adopted in California in 2023 that mandates transitioning MHD fleets to zero emissions
ACT	Advanced Clean Trucks	A regulation adopted in California in 2020 requiring medium- and heavy-duty vehicle manufacturers to sell an increasing percentage of ZEVs (such as BEVs or FCEVs) from 2024 to 2035
ADA	Americans with Disabilities Act	A landmark 1990 U.S. federal civil rights law prohibiting discrimination against individuals with disabilities in all public and private areas of life, including employment, public services, and public accommodations
	Adapter	Hardware that allows an EV driver to connect their EV to a charging station that the EV could otherwise not connect to. Example: CCS-to-NACS adapter.
BEV	Battery-electric vehicle	Used interchangeably with electric vehicle (EV) in this plan
CAAS	Charging-as-a-service	A business model for vendors providing EV charging to fleets, paid on a per-kWh or per-EV basis, converting a capital expenditure into an operating expense.
CAPEX	Capital expenditure	Initial investment to be budgeted by Inyo County
CARB	California Air Resources Board	A California state agency established in 1967 to combat air pollution and climate change, protecting public health through strict emission standards. CARB regulates mobile/stationary sources, sets vehicle emissions, and develops climate programs.
CEC	California Energy Commission	CA state agency for energy policy, planning, and regulation, focused on creating a resilient, clean energy system. Among other duties, it funds charging infrastructure grant programs.
	Charging Plug	A connector of a charging station that can be plugged into an EV. One station may have one or more charging plugs.
	Charging station	A station designed to dispense electrical energy through its charging cords and plugs to one or more EVs. See also: "EVSE".
CCS	Combined Charging System	The most common plug (connector) type for Level 1, Level 2 and DC fast charging outside of Tesla's NACS connector.
CORE	Clean Off-Road Equipment	A California incentive project funding off-road equipment users to purchase or lease currently commercialized zero-emission off-road equipment

DC	Direct current	Electric current that is uni-directional. As opposed to AC (alternating current).
DCFC	Direct current fast charging/charger	Charger which rectifies the AC voltage from the grid as part of the charging station, with typical power output levels of 50 kW and above, suitable for opportunity charging and charging medium and heavy-duty EVs.
	Dwell time	The duration during which a fleet vehicle is parked and available for charging. The most significant dwell time for charging most fleet EVs is overnight, potentially supplemented by shorter mid-day durations when opportunity charging.
EPA	Environmental Protection Agency	An independent agency within the U.S. government established to protect human health and the environment by developing and enforcing environmental regulations, including motor vehicle emission standards.
EV	Electric vehicle	Used interchangeably with BEV in this plan
EVSE	Electric vehicle supply equipment	Equipment that transfers electricity from a power source to an EV, commonly referred to as "charging station". In a wider sense, EVSE includes software and communication protocols between the charging hardware and the EV.
FCEV	Fuel cell electric vehicle	A type of electric vehicle that uses a fuel cell to convert hydrogen into electricity, powering the vehicle's electric motor and producing only water vapor as a byproduct.
GHG	Greenhouse Gas	A gas that contributes to the greenhouse effect, warming the Earth. Examples: carbon dioxide (CO_2), methane (CH_4)
GVWR	Gross Vehicle Weight Rating	The maximum weight a vehicle can safely carry, as specified by the manufacturer. This includes the vehicle itself, all fluids, passengers, cargo, and any weight from a trailer that the vehicle is carrying.
HD	Heavy-duty	A heavy-duty vehicle is one with a GVWR of more than 26,000 lbs. (per FHWA definition)
ICE	Internal combustion engine	An engine that generates propulsion power by the burning of gasoline, diesel, or other fuel with air inside the engine, the hot gases produced being used to drive a piston or do other work as they expand.
ICEV	Internal combustion engine vehicle	A vehicle powered by a traditional gasoline or diesel engine (an ICE), where the fuel is burned inside the engine to generate power.
IIJA	Infrastructure Investment and Jobs Act (2021)	A federal law enacted in 2021 to modernize the nation's infrastructure. Among many other infrastructure-related provisions and funding streams, the IIJA includes $7.5 billion for a EV charger deployment, $5 billion of which are supporting the NEVI program. IIJA is also known as the Bipartisan Infrastructure Law (BIL).

ISO 15118		An international standard that defines the communication interface between EVs and EVSE. It enables secure, efficient, and interoperable charging, allowing EVs from different OEMs to communicate with various charging stations. The standard also supports advanced features like smart charging and bidirectional charging (V2G).
J1772		A connector design standard and communications protocol for AC and DC charging developed by SAE.
J3400		An SAE connector design standard, representing the standardization of Tesla's charging plug (see NACS).
KVA	Kilovolt-ampere	Kilovolt-ampere (kVA) is a unit of apparent power in an electrical circuit, representing the product of voltage and current. It is a measure of the total power flowing in an AC circuit, encompassing both real power (measured in kilowatts, kW) and reactive power.
KW	Kilowatt	One thousand Watts, a measure of (real) power.
KWH	Kilowatt-hour	A unit of energy often used when referring to electrical energy, such as the one stored in an EV's battery
LADWP	Los Angeles Department of Water and Power	The largest municipal utility in the U.S., providing water and electricity to over 4 million customers within the City of Los Angeles, several adjacent communities and, for electric services, rural Eastern Sierra Nevada regions
LCFS	Low Carbon Fuel Standard	A market-based state policy administered by CARB designed to provide incentives for low-carbon fuels, such as electricity. Dispensing electricity to EVs using charging stations is one way of generating LCFS credits and selling these credits can provide a revenue source.
LD	Light duty	A light-duty vehicle is one with a GVWR of up to 10,000 lbs. (per FHWA definition)
MD	Medium duty	A medium-duty vehicle is one with a GVWR of more than 10,000 lbs. and up to 26,000 lbs. (per FHWA definition)
MHD	Medium-/heavy-duty	A vehicle with a GVWR of more than 10,000 lbs. (per FHWA definition)
NACS	North American Charging Standard	Plug (connector) type developed by Tesla that works for both AC and DC charging. As of Q1 2024, the NACS connector is being standardized as SAE standard J3400.
NEC	National Electric Code	The NEC, also known as NFPA 70, is a comprehensive set of standards for the safe installation of electrical wiring and equipment in the U.S.
NEVI	National Electric Vehicle Infrastructure (program)	The National Electric Vehicle Infrastructure (NEVI) program is a federal initiative, part of the Bipartisan Infrastructure Law, with a $5 billion budget to establish a nationwide network of publicly available EV fast-charging stations along designated highway corridors. Its goal is to

		create a convenient, reliable, and equitable charging network, supporting the widespread adoption of EVs.
OCPP	Open Charge Point Protocol	A communications protocol between a charging station (i.e. the hardware) and the charging network provider's central charging management system (see CMS).
OEM	Original equipment manufacturer	
	Opportunity charging	Rapid EV charging using DC fast chargers at locations other than where the fleet vehicle is domiciled. For Inyo County fleet vehicles, opportunity charging could occur at charging facilities strategically located around the county (as discussed in Chapter 5) and potentially at other charging facilities including those belonging to other agencies and public commercial chargers.
PHEV	Plug-in hybrid electric vehicle	A type of hybrid vehicle that combines an internal combustion engine (ICE) with an electric motor and a larger battery pack than a traditional hybrid. PHEVs can be plugged into an external power source, like a charging station, to recharge the battery, offering a certain range of all-electric driving.
SAE	Society of Automotive Engineers	A global association that advances mobility knowledge and solutions for the aerospace, automotive, and commercial vehicle industries. SAW plays a significant role in establishing EV charging standards, particularly in North America. They develop and publish standards for various aspects of EV charging, including connectors, communication protocols, and safety requirements.
SCE	Southern California Edison	A major investor-owned utility, acting as the primary subsidiary of Edison International, that provides electricity generation, transmission, and distribution to about 15 million people in central, coastal, and southern California
SOC	State-of-charge	Battery state-of-charge, measured as a percentage of the battery's usable capacity
TOU	Time-of-use	Time-of-use rates are a type of electricity pricing where the cost of electricity varies depending on the time of day when it is used.
	Vehicle class	The vehicle class per FHWA's vehicle classes (https://afdc.energy.gov/data/10380), e.g. Class 1-8.
ZE	Zero-emission	Examples: ZE vehicles, ZE charging and refueling
ZEV	Zero-emission vehicle	A vehicle that produces no exhaust gas or other pollutants from its onboard power source under any operational mode or condition

ES. EXECUTIVE SUMMARY

The Inyo County EV Charging Infrastructure Network Plan (referred to as the "Plan" in this document) represents a comprehensive and actionable plan to guide the installation of EV chargers for use by local residents, visitors, and County fleet vehicles. Along with serving as a decision support tool, the Plan will position Inyo County to be competitive for current and upcoming funding opportunities. While the Plan does not specifically prescribe exactly what public charging infrastructure gets built, when it is built, or how it specifically is paid for, it provides a roadmap that will help guide Inyo County is increasing its chance for success in EV infrastructure funding, siting, design, and implementation. The Plan includes specific recommendations on charging infrastructure needs for the County's future EV fleet, including phased installation guidance and cost estimates.

It is clear that the EV landscape is going through uncertain times with changes in policies at the Federal level leading to resultant changes at the state and local level. However with this Plan, Inyo County is preparing itself to be at the forefront of planning for increased EV adoption moving forward, especially among more rural, geographically distributed, low population counties in California.

ES.1. KEY ISSUES AND FINDINGS

Analysis of existing conditions, stakeholder input, and charging demand projections identified several key issues that shape EV infrastructure planning in Inyo County.

- First, there are **significant gaps in publicly accessible DC fast charging (DCFC) infrastructure**, particularly along major travel corridors and in remote areas of the county. While some charging infrastructure exists, it is often limited in availability, concentrated in a few locations, or restricted to specific vehicle types. This creates challenges for long-distance travel, tourism, and regional connectivity, especially given the County's role as a gateway to destinations such as Death Valley National Park and Mammoth Lakes.
- Second, **travel patterns in Inyo County are heavily influenced by tourism and regional travel**, resulting in high demand for reliable and strategically located DC fast charging. Public engagement and stakeholder feedback consistently highlighted the need for charging along U.S. 395 and at key destinations such as Bishop, Lone Pine, Independence, and major recreation areas. These findings reinforce the importance of a corridor-based charging strategy that supports both residents and visitors.
- Third, there are **notable equity considerations related to charging access in rural and underserved communities**. Several smaller and more isolated communities currently lack any meaningful access to EV charging infrastructure, which may limit EV adoption among residents and reduce the benefits of electrification. Addressing these gaps will be critical to ensuring that infrastructure deployment is equitable and supports all communities within the county.
- Fourth, **utility constraints and site-specific infrastructure limitations** can present significant barriers to charger deployment. In some areas, limited electrical capacity or the need for substantial utility upgrades may increase project costs and extend implementation timelines.

Early coordination with both utility providers (SCE and LADWP) will be essential to successfully advancing priority projects.

- Fifth, Inyo County and its partner agencies face **increasing regulatory pressure to transition Inyo County's vehicle fleet to zero-emission technologies**. State regulations such as Advanced Clean Cars II (ACC II), Advanced Clean Trucks (ACT), and Advanced Clean Fleets (ACF) will require a phased transition to zero-emission vehicles over the coming decades. This creates a need for coordinated planning of fleet vehicle replacement and associated charging infrastructure to ensure operational continuity and cost-effective implementation.
- Finally, **successful implementation will depend on project readiness**, not only on identifying priority charging locations. This includes site validation, utility coordination, permitting, procurement, and ongoing coordination among ICLTC, County departments, utilities, and property owners.

ES.2. RECOMMENDATIONS

Based on these findings, the Plan establishes a strategic and phased approach to EV charging infrastructure deployment across Inyo County.

At the network level, the Plan recommends developing a reliable and well-distributed charging system that prioritizes both corridor and community needs. This includes a strong emphasis on expanding DC fast charging along U.S. 395 and other key travel routes to support long-distance travel and tourism, as well as increasing Level 2 charging in community locations to support local and overnight charging needs.

Key recommendations include:

- **Expand upon a corridor-based DC fast charging network** along U.S. 395 and other critical travel routes, with priority sites in Bishop, Lone Pine, Independence, and key junctions and destinations.
- **Expand Level 2 charging in community and residential areas**, including civic facilities, parks, and commercial centers, to support daily use by residents (particularly those currently lacking access to charging at home) and longer dwell-time charging.
- **Prioritize investment in underserved and remote communities** to improve equity and ensure countywide access to EV charging infrastructure.
- **Advance a phased implementation strategy** organized around near-, medium-, and long-term actions, aligning public charger deployment and fleet electrification with funding cycles, utility readiness, regulatory requirements, and County budget projections.
- **Coordinate fleet electrification with infrastructure deployment**, ensuring that charging installations at County facilities align with vehicle replacement schedules and operational needs supported by sufficient electrical capacity and infrastructure.
- **Clarify implementation roles among local and regional agencies**, such as ICLTC, County Public Works, member agencies, state government, utilities, contractors, and private site hosts to improve project delivery and accountability.
- **Engage early and continuously with utility providers** to identify capacity constraints, plan for necessary upgrades, and reduce project delivery timelines.

- **Pursue diverse funding sources**, including federal, state, and regional programs, while leveraging potential revenue streams such as Low Carbon Fuel Standard (LCFS) credits to generate new revenue and offset operating costs.
- **Implement an outreach and education strategy** that includes agency coordination, public information on new and planned charging sites, targeted outreach to underserved communities, and early coordination with private property owners at priority implementation sites.

Through these recommendations, the Plan establishes a clear path forward for Inyo County to build a resilient, accessible, and future-ready EV charging network. By prioritizing strategic investments, leveraging available funding, and coordinating across agencies and stakeholders, the County can support the transition to emissions-free mobility while maintaining reliable transportation access across its geographically distributed rural landscape.

ES.3. SITING RECOMMENDATIONS EXHIBITS

The following pages contain exhibits summarizing analysis results of estimated charger needs, site selection criteria, site design recommendations, and implementation and ownership models for each relevant charging use case studied for this Plan:

1. Public Destination Charging (Level 2)
2. Private Multi-Family Charging (Level 1/2)
3. Private Workplace Charging (Level 2)
4. Public Community Fast Charging (DCFC)
5. Public Corridor Fast Charging (DCFC)

These exhibits serve as useful references or handouts to interested audiences, including County staff, capital project managers, potential site hosts, private EV charging networks, and utilities.

Public Destination Charging (Level 2) (1/2)

Overview

Public Destination Charging supports EV drivers while they stop at public destinations, such as retail, medical, entertainment, hospitality, cultural, and recreation sites where visitors commonly park for hours. Additionally, public Level 2 chargers may also serve local residents who do not have access to charging at home.

Level 2 chargers should be provided at locations where drivers park for 1-8 hours.

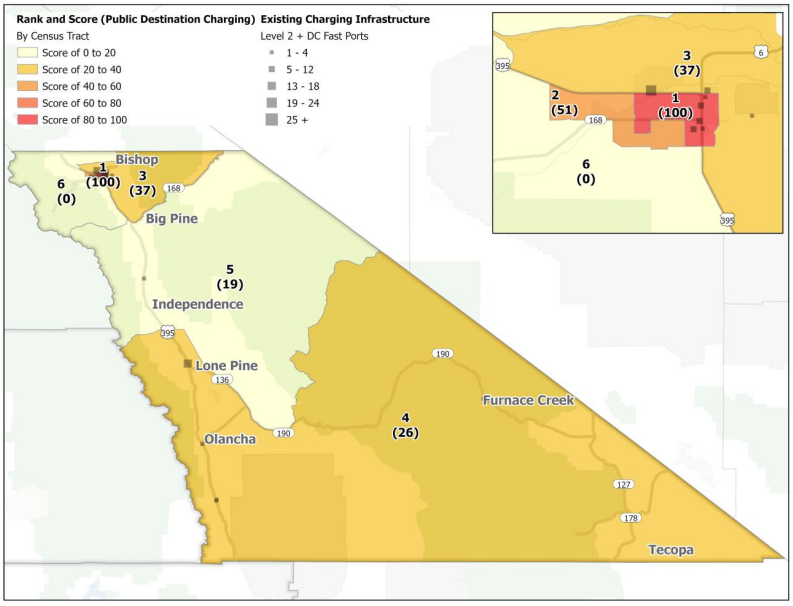
Charging Level	Level 2
Description	Charging at public locations like shopping centers, full-service restaurants, theaters, medical facilities, parks, trailheads, airports, etc.
Typical Users in Need	Shoppers, visitors, day-trippers, local residents

Needs Across Inyo County

Needs Analysis: To understand the need for additional public Level 2 destination chargers, a systematic approach evaluated regional EV adoption, existing charging infrastructure access, socioeconomic factors, environmental justice priorities, travel activity, and commute patterns to identify high- and moderate-demand areas.

Darker areas on the map below correspond to a higher need for Public Destination Charging. The analysis was conducted at the census tract level, which divide the U.S. by local population distribution. This leads to fairly large census tracts in sparsely populated areas.

> ***Public destination chargers turn parking lots into community amenities, fueling local commerce while advancing clean transportation.***



Results:
The analysis shows a clear concentration of needs in and around the City of Bishop, where many of the County's key destinations (such as retail opportunities) and residents who may lack access to charging are located. Other destinations suitable to public Level 2 EV charger installations exist in other communities of the County, including Lone Pine, Big Pine, and Independence.

Additionally, regional airports could provide low-speed charging access for travelers parked for one or more full days (Level 1 or low-speed Level 2).

Lastly, many of the County's areas have needs for this charging type due to the various trailheads, campgrounds, and parks.

Charger Deficiency/Gap: Based on data from the Alternative Fuels Data Center (AFDC), there are currently about **18 public Level 2 charging ports** installed in Inyo County. It is difficult to estimate how many of these strictly serve destination charging, but the overlap is likely large. The County needs about **~670 more public Level 2 ports by 2035**, with more than 500 of them concentrated in and around Bishop.

Public Destination Chargers Needed in Inyo County in 2035:

Tract	Existing Public Level 2 Chargers	Public Destination Level 2 Chargers Needed by 2035
000100 – Bishop (north/east)	6	35
000200 – Northwest County	2	<5
000300 – Bishop (west)	-	35
000400 – Bishop (central)	-	540
000500 – Big Pine/ Independence	-	10
000800 – Lone Pine/ Death Valley	5	40
Total	13	~670

Public Destination Charging (Level 2) (2/2)

Site Selection Criteria

Public Level 2 destination charging stations should be provided at the following **suitable site types:**

- Downtown business districts, main streets, retail centers, public parking lots
- Full-service restaurants, theaters, entertainment and event venues
- Parks, trailheads, visitor centers
- Airports
- Medical offices
- Civic buildings (city hall, community centers, libraries, etc.)

The following **criteria** can be used to vet potential sites for public Level 2 destination charger installations:

Area	• Within urban cores or town centers • At or near key destinations, consider user safety
Site Access	• Public vehicle access, high visibility of site entry points
Site Ownership	• Owned or operated by a public agency (county, city, state, federal)
On-Site Placement	• Near building entrances or walkways (for visibility and safety) • Provide clear signage and pavement striping

Site Design Recommendations

Charger & Parking Configuration:
- Minimum of 2-4 Level 2 ports per site for redundancy and cost-effectiveness
- Dedicated and unobstructed EV-only stalls, clearly marked and painted
- Include accessible (ADA-compliant) EV stall per CA State or local requirements
- Position chargers to minimize cord stretch and trip hazards, with pedestals located near the center front of the stall
- Use bollards or wheel stops to protect pedestals

Electrical and Utility Considerations:
- Install dedicated circuits and disconnects per NEC Article 625
- Utilize existing electrical capacity where feasible
- Include conduit stub-outs or raceways for easy future expansion

Site Amenities & Visibility:
- Provide adequate nighttime illumination for safety and usability (minimum 2.0 foot-candles at ground level), include security cameras or public visibility where possible
- Signage: post "EV Charging Only" signs with applicable time limits, include wayfinding signs from nearby arterials or parking entrances
- Use canopies or shade structures where possible, integrate solar PV for offsetting operational energy

User Experience:
- Support multiple payment methods (credit card, RFID, mobile app)
- Ensure real-time network status visibility through online maps (e.g. PlugShare) and AFDC integration

Maintenance and Reliability:
- Require ≥97% uptime, prompt repair (≤48 hours), and preventive maintenance every 6-12 months via an SLA
- Include QR codes or contact info for each charger for issue reporting
- Avoid placing chargers in snow plow paths, ensure surface drainage away from electrical equipment

Implementation & Ownership Models

Retail, hospitality and "experience economy" venues view destination chargers as both amenity (EV-drivers expect chargers) and competitive differentiator (you stay longer, spend more).

Suitable implementation models:
- Publicly-owned sites:
  - Local government to build, own, & operate chargers
  - Local government to build, own, & outsource operation of chargers on publicly-owned sites
  - Land-lease agreements (County/City lease property to an EV charging company)
- Privately-owned sites:
  - Direct private investment by EV charging company or local business (or joint)
  - Grant applications (by public agencies or private entities)

Suitable operating & pricing models (depending on site conditions and site host preferences):
- Free (unlimited or time-limited) access – to attract visitors and support local business
- Fee-based access – per kWh (recommended) or per hour for cost recovery/revenue generation and turnover management
- Include service level agreement (SLA) – to ensure charger uptime of 97% or more and prompt maintenance/repair

Recommended Role for Local Government (County/Cities):
- Evaluate all publicly-owned properties
- Explore funding & implementation models (own/operate, land lease, etc.)
- Provide letters of support for grant applications led by private businesses (to document charging need in selected areas)
- Assist in streamlining of approval & permitting

Private Multi-Family Charging (Level 1/2) (1/2)

Overview

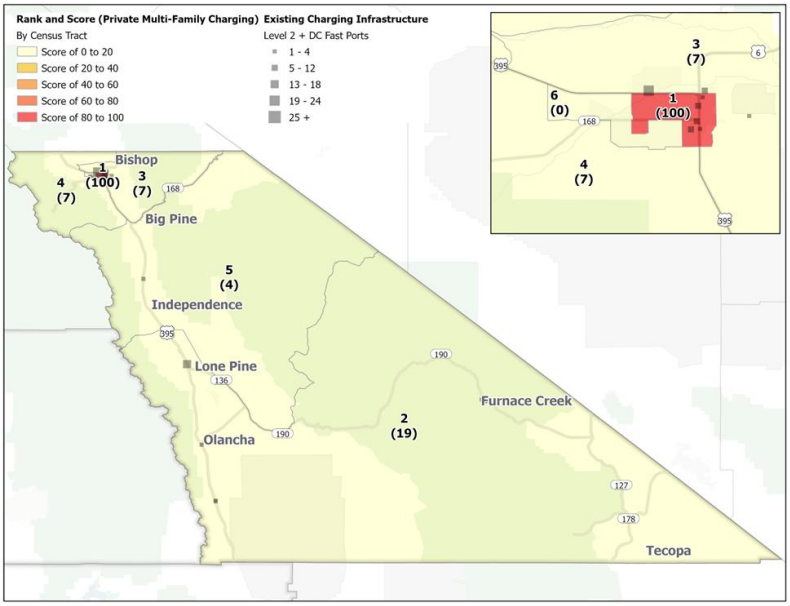
Private Multi-Family Charging supports EV drivers who live in multi-family residences (often apartments where they have no control over installation of charging equipment at their homes). Lack of charging access at multi-unit dwellings (MUDs) is a significant barrier to EV adoption.
This should typically be provided in the form of **Level 2 chargers** and is best suited at locations where people park overnight.

Charging Level	Level 2
Description	Charging at parking provided by multi-family developments
Typical Users in Need	Residents of multi-family housing

Needs Across Inyo County

Needs Analysis: To understand the need for additional private Level 2 chargers for multi-family housing, a systematic approach evaluated regional EV adoption, existing charging infrastructure access, socioeconomic factors, environmental justice priorities, travel activity, and housing and commute patterns to identify high- and moderate-demand areas.

Darker areas on the map below correspond to a higher need for Private Multi-Family Charging. The analysis was conducted at the census tract level, which divide the U.S. by local population distribution. This leads to fairly large census tracts in sparsely populated areas.



> ***Multi-family charging ensures every county resident can charge at home – no matter their housing type. Lack of home charging access at MUDs is a key hurdle for increasing EV adoption.***

Results:
The analysis shows a clear concentration of needs in and around the City of Bishop, where many of the county's apartment buildings and complexes are located. Other destinations suitable to private Level 2 EV charger installations exist in other communities of the county, including Lone Pine, Big Pine, and Independence.

Due to the fact that many of Inyo County's apartments are located in smaller buildings as opposed to larger complexes, it is clear that not all apartments are appropriate locations for private charging and locating of community charging near concentrations of multi-family housing can be appropriate as well

Charger Deficiency/Gap: Based on data from the Alternative Fuels Data Center (AFDC), there are **currently virtually no private Level 2 charging ports** installed at multi-family residences in Inyo County. The County needs about **~115 private Level 2 ports** by 2035, with about 100 of them concentrated in and around Bishop.

Private Multi-Family Chargers Needed in Inyo County in 2035:

Tract	Existing Private MUD Level 2 Chargers	Private Multi-Family Level 1/2 Chargers Needed by 2035
000100 – Bishop (north/east)	-	~5
000200 – Northwest County	-	-
000300 – Bishop (west)	-	~5
000400 – Bishop (central)	-	95
000500 – Big Pine/ Independence	-	~5
000800 – Lone Pine/ Death Valley	-	~5
Total	-	~115

Private Multi-Family Charging (Level 1/2) (2/2)

Site Selection Criteria

Private multi-family Level 2 charging stations should be provided at the following **suitable site types:**

- Apartment complexes and condominiums
- Mobile home parks
- Workforce or affordable housing developments

The following **criteria** can be used to vet potential sites for private multi-family Level 2 charger installations:

Area	• At concentrations of or individual multi-family housing developments
Site Access	• On-site parking availability and power capacity • Private (tenant-only) parking
Site Ownership	• Owner or HOA, must be willing to support EV charger installations (if not required by code)
On-Site Placement	• In all or portion of available stalls • Exclusive-use, shared-access, or hybrid stall assignment

Site Design Recommendations

Charger & Parking Configuration:
- Minimize disruption to existing parking layout
- Ensure short conduit runs to electrical panels wherever possible, such as by clustering chargers
- **Surface lots:** mount pedestal chargers along perimeter stalls closest to electrical rooms or utility service
- **Carports or covered parking:** mount chargers on support columns with overhead ("surface-mounted") conduit routing
- **Garages:** use wall-mounted charging units, ensure ventilation, physical safety (bollards/wheel stops), and ADA clearances.

Electrical and Utility Considerations:
- Install dedicated circuits and disconnects per NEC Article 625
- Include conduit stub-outs or raceways for easy future expansion
- Design raceways and panels for future scalability (e.g., 1 circuit per 4–6 stalls initially, expandable to 1 per 2–3 stalls).
- Use smart load-sharing systems to support multiple chargers on limited power supply

Stall/Unit Assignment:
- **Exclusive-Use Model:** Each charger is dedicated to a specific tenant or condo unit. Typically installed at each tenant's assigned parking stall. Tenants pay for electricity directly through metering or billing software.
- **Shared-Access Model:** Chargers are located in common parking areas and used by multiple tenants. Access controlled via RFID cards, PINs, or app authentication. Usage logged per user for billing or reimbursement. Ideal for complexes with limited electrical capacity or flexible parking policies.
- **Hybrid Model:** Combination of exclusive and shared chargers. Recommended for larger multi-family properties or mixed-income developments.

Management Considerations:
- Define policies for stall assignment (dedicated vs. rotating use).
- Maintain clear signage ("EV Charging Only – Reserved for Unit X" or "EV Charging Only – Shared Tenant Use") and enforcement to prevent overstaying in charging stalls.

Maintenance and Reliability:
- Require ≥97% uptime, prompt repair (≤48 hours), and preventive maintenance every 6-12 months via an SLA

Implementation & Ownership Models

Property owners and managers increasingly view multi-family charging as both a resident amenity and a long-term property investment.
Providing reliable on-site EV charging enhances tenant satisfaction, supports equitable access to clean transportation, and helps future-proof residential communities as public EV adoption continues to grows.

Suitable implementation models:
- Property-owner investment or cost-share with EV charging providers
- Grants and rebates through utilities or CEC programs

Suitable operating & pricing models (depending on site conditions and site host preferences):
- **Resident-paid charging** – Per kWh (preferred where feasible), per hour, or per session to recover electricity and operating costs
- **Subscription model** – Monthly fee for charger access, with or without usage limits
- **Bundled amenity pricing** – Charging costs incorporated into rent, parking fees, or other tenant charges
- **Assigned or shared access** – Dedicated chargers for specific spaces or shared chargers managed across residents (including idle fees to discourage overstaying and improve availability)
- **Include service level agreement (SLA)** – to ensure charger uptime of 97% or more and prompt maintenance/repair

Recommended Role for Local Government (County/Cities):
- Provide technical guidance and code updates (EV-ready requirements)
- Offer incentives for retrofits
- Streamline approvals of permit applications
- Encourage inclusion of EV charging in affordable housing projects

Private Workplace Charging (Level 2) (1/2)

Overview

Private Workplace Charging supports employees who park for extended periods during the workday. These chargers enable convenient daytime charging access at places of employment, helping to reduce range anxiety for commuters who may lack home charging options. Workplace chargers may also be used on occasion by visitors, customers, and delivery vehicles. This charging type should be provided in the form of Level 2 chargers and is best suited for locations where vehicles are parked for 4-10 hours during typical working hours.

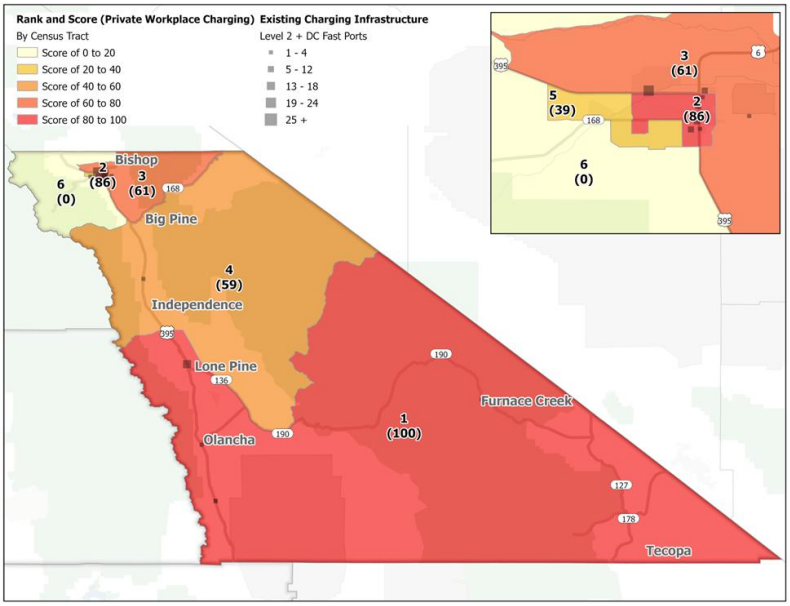
Charging Level	Level 2
Description	Charging at private or semi-private locations such as office buildings, business parks, government facilities, and industrial sites where employees park during the workday.
Typical Users in Need	Employees, fleet drivers, and long-duration visitors (e.g., contractors, clients).

Needs Across Inyo County

Needs Analysis: To understand the need for additional public Level 2 destination chargers, a systematic approach evaluated regional EV adoption, existing charging infrastructure access, socioeconomic factors, environmental justice priorities, travel activity, and commute patterns to identify high- and moderate-demand areas.

> ***"Workplace charging helps employees go electric – and helps employers show sustainability leadership."***

Darker areas on the map below correspond to a higher need for Public Corridor Fast Charging. The analysis was conducted at the census tract level, which divide the U.S. by local population distribution. This leads to fairly large census tracts in sparsely populated areas.



Charger Deficiency/Gap: Based on data from the Alternative Fuels Data Center (AFDC), there are currently no private-access Level 2 chargers at workplaces installed in Inyo County. The County is estimated to need about **~220 private Level 2 charging ports at workplaces** by 2035, with about 160 of them concentrated in and around Bishop, about 45 in the large Lone Pine & Death Valley area, and another 10 across Big Pine and Independence.

Results:
The analysis shows a diverse need for workplace charging across Inyo County. The Lone Pine/Death Valley census tracts scores highest for this need, driven by very large commute distances and the presence of moderately-sized employers, such as the National Park, Caltrans facilities, and hotels, resort, and other accommodation.

Bishop is also ranked high, having the highest density of employers that are among the largest in the County. This includes many local government facilities (e.g. City, County, fire stations, police department), restaurants, and local LADWP and Caltrans branches.

Private Workplace Chargers Needed in Inyo County in 2035:

Tract	Existing Private Workplace Level 2 Chargers	Private Workplace Level 2 Chargers Needed by 2035
000100 – Bishop (north/east)	-	15
000200 – Northwest County	-	<5
000300 – Bishop (west)	-	5
000400 – Bishop (central)	-	145
000500 – Big Pine/ Independence	-	10
000800 – Lone Pine/ Death Valley	-	45
Total	**-**	**~220**

Private Workplace Charging (Level 2) (2/2)

Site Selection Criteria

Private Level 2 workplace charging stations should be provided at the following **suitable site types:**

- Office buildings
- Industrial and business parks with centralized employee lots
- Public agency and government offices
- Hospital and school campuses (large employers with stable parking demand)

The following **criteria** can be used to vet potential sites for private Level 2 workplace charger installations:

Area	• Within employment centers, business parks, or institutional campuses or yards • Near major commuter corridors or concentrated job hubs
Site Access	• Ideally use area limited to employee or fleet vehicle access
Site Ownership	• Privately owned or operated by employers, property managers, or local government • May include partnerships with utilities or third-party charging providers
On-Site Placement	• In employee or fleet parking areas near main building entrances for convenience and visibility

Site Design Recommendations

Charger & Parking Configuration:

- Minimum of 2-6 Level 2 ports per site to accommodate multiple employees and ensure redundancy
- Consider ratio of employees to chargers
- Designate dedicated EV-only stalls located near building entrances or employee lots, clearly marked and painted
- Plan conduit for future expansion
- At large employers, consider time-limited parking policies (e.g., "4-hour max") if turnover is desired
- Include at least one accessible (ADA-compliant) EV stall per facility, positioned near an accessible route to the building

Electrical and Utility Considerations:

- Install dedicated 208/240 V circuits with disconnects compliant with NEC Article 625
- Coordinate early with the local utility to assess available transformer capacity and potential demand-charge implications for daytime charger use
- For smaller employers or sites with limited electrical infrastructure, consider networked load-management systems that distribute power among chargers to stay within site capacity limits
- For campuses or large employers, consider centralized EV-ready panels that can support multiple charging clusters

Access and User Management:

- Restrict charger access to authorized employees through RFID card, mobile-app authentication, or physical access barriers (badge access to gated parking area)
- Post clear operational signage outlining usage policy, time limits, and contact information for assistance

User Experience:

- Choose networked chargers that support payment processing and energy usage tracking
- Promote workplace charging as part of organizational sustainability goals; highlight energy savings and GHG reductions through periodic communications
- Consider free or discounted charging as an employee incentive. However, anticipate long-term implications under growing EV adoption.

Maintenance, Safety, and Reliability:

- Require ≥97% uptime, prompt repair (≤48 hours), and preventive maintenance every 6-12 months via an SLA
- Equip chargers with bollards, wheel stops, and adequate lighting for safety and nighttime usability
- Avoid snow plow paths, ensure surface drainage away from electrical equipment

Implementation & Ownership Models

Employers increasingly view workplace charging as both an employee benefit and a sustainability investment. Providing EV charging helps attract and retain talent and demonstrate leadership in clean transportation.

Suitable implementation models:

- Privately-owned sites:
  - Employer-funded installation and ownership – company procures, installs, and manages chargers as an employee amenity or sustainability measure.
  - Employer-owned, third-party operated – employer owns infrastructure but contracts a network operator for operation, maintenance, and billing.
  - Third-party investment model – charging service provider installs and operates equipment under lease or revenue-share with the property owner.
- Publicly-owned or institutional workplaces:
  - Agency-owned installations at County, City, or State employee facilities.
  - Public-private partnerships with charging networks for installation and management/operation

Suitable operating & pricing models (depending on site conditions and site host preferences):

- Free access for employees as a workplace benefit or fleet-support measure.
- Fee-based access – per kWh or per session, to manage demand and recover electricity or maintenance costs.
- Reimbursable access – employees pay directly through app or RFID, with optional employer reimbursement for verified work-related use.

Recommended Role for Local Government (County/Cities):

- Lead by example by installing workplace chargers at County and City facilities
- Support local employers through outreach, technical guidance, and incentive awareness
- Provide letters of support for grant or rebate applications from private businesses
- Streamlining permitting & electrical review
- Encourage voluntary participation in recognition or certification programs highlighting EV-friendly workplaces (such as Forth's EVAL)

Public Community Fast Charging (DCFC) (1/2)

Overview

Community Fast Charging supports both residents and visitors needing quick top-ups during short stops within populated areas. This should be provided in the form of **DC fast chargers (DCFCs)** and is best suited at locations where people park for less than one hour.

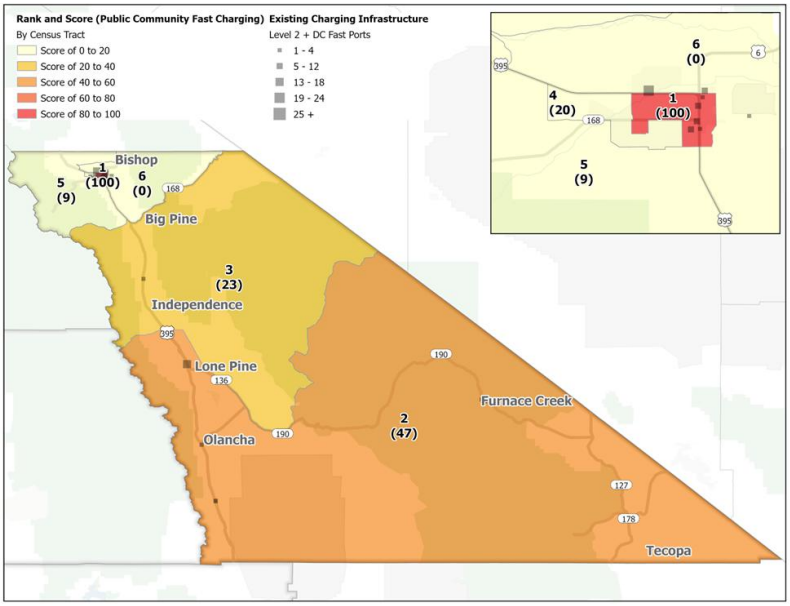
Charging Level	DCFC
Description	Fast charging in community hubs such as downtown areas or near transit
Typical Users in Need	Local drivers, Uber/Lyft/taxi drivers, fleets

Needs Across Inyo County

Needs Analysis: To understand the need for additional public community fast chargers, a systematic approach evaluated regional EV adoption, existing charging infrastructure access, socioeconomic factors, environmental justice priorities, travel activity, and commute patterns to identify high- and moderate-demand areas.

Darker areas on the map below correspond to a higher need for Public Corridor Fast Charging. The analysis was conducted at the census tract level, which divide the U.S. by local population distribution. This leads to fairly large census tracts in sparsely populated areas.

> ***Fast charging at community hubs empowers residents and local fleets to recharge quickly without need to travel great distances.***



Results:
The analysis shows a clear concentration of need for in the City of Bishop, which ranks as the County's highest-demand area due to its role as the primary population, employment, and service center.

Other priority areas include Lone Pine and the Death Valley gateway area, which show strong suitability because of their roles as community activity centers and gateways to major recreational destinations such as Death Valley National Park and Mt. Whitney.

Lastly, areas outside these main communities generally show lower suitability for this charging type, as they have smaller population bases and fewer concentrated activity centers where community-oriented fast charging would be most utilized.

Charger Deficiency/Gap: Based on data from the Alternative Fuels Data Center (AFDC), there are currently about **96 public DC fast charging ports** installed in Inyo County. It is difficult to estimate how many of these strictly serve community fast charging. The County needs about **~130 public community DCFC ports** by 2035, with more than 100 of them concentrated in and around Bishop.

Public Community Fast Chargers Needed in Inyo County in 2035:

Tract	Existing Public DC Fast Chargers	Public Community Fast Chargers Needed by 2035
000100 – Bishop (north/east)	24	<5
000200 – Northwest County	-	<5
000300 – Bishop (west)	-	<5
000400 – Bishop (central)	23	101-150
000500 – Big Pine/ Independence	2	<5
000800 – Lone Pine/ Death Valley	47	11-20
Total	**96**	**~130**

Public Community Fast Charging (DCFC) (2/2)

Site Selection Criteria

Public community fast charging stations should be provided at the following **suitable site types:**

- Grocery stores, retail centers, and civic parking lots
- Parks, libraries, and recreation centers
- Downtown parking lots with 24-hour access
- Limited-service restaurants (such as fast food), small museums, visitor centers

The following **criteria** can be used to vet potential sites for public community fast charger installations:

Area	• Within urban cores or activity centers • At or near major destinations, consider site safety
Site Access	• Easy public vehicle access from major roads • High visibility, clear circulation, and safe ingress/egress
Site Ownership	• Publicly owned sites or private sites with willing hosts
On-Site Placement	• Near primary parking and circulation area • Provide clear signage and pavement striping

Site Design Recommendations

Charger & Parking Configuration:
- Provide multiple DC fast charging ports where demand is expected
- Use dedicated EV charging stalls with adequate maneuvering space
- Include at least one accessible (ADA-compliant) stall per applicable requirements
- Position equipment to minimize cable reach to charging inlets and vehicle conflicts
- Use bollards or wheel stops to protect charging equipment (pedestal, electrical equipment)

Electrical and Utility Considerations:
- Install dedicated circuits and equipment consistent with utility requirements
- Prioritize sites with available electrical capacity or feasible service upgrades
- Coordinate early with the utility on transformer, panel, and interconnection needs
- Design electrical capacity for future expansion where possible

Site Amenities & Visibility:
- Provide adequate lighting for safety and nighttime use
- Include security cameras or public visibility where feasible
- Install clear signage from nearby streets and within the site
- Co-locate with restrooms, food, seating, or other nearby amenities when possible

User Experience:
- Support multiple payment methods (credit card, mobile app, RFID)
- Display pricing, time limits, and charging instructions clearly
- Ensure real-time charger status is available through maps and charging apps
- Provide contact information or QR codes for customer support

Maintenance and Reliability:
- Require ≥97% uptime, prompt repair (≤48 hours), and preventive maintenance every 6-12 months via an SLA
- Establish routine inspection and preventive maintenance procedures
- Include remote monitoring and fault notifications where feasible
- Ensure drainage and snow clearance do not interfere with charger operation

Implementation & Ownership Models

Public community fast chargers are typically intended to serve local residents and visitors who need convenient short-duration charging at publicly accessible locations.

Suitable implementation models:
- Publicly-owned sites:
  - Local government to build, own, & operate chargers
  - Local government to build, own, & outsource operation of chargers on publicly-owned sites
  - Land-lease agreements (County/City lease property to an EV charging company)
- Privately-owned sites:
  - Direct private investment by EV charging company or local business (or joint)
  - Grant applications (by public agencies or private entities)

Suitable operating & pricing models (depending on site conditions and site host preferences):
- Fee-based access using per-kWh pricing (typically required), or per-minute/session pricing where needed
- Time-based policies or idle fees to promote turnover and charger availability
- Networked operation with remote monitoring, customer support, and payment processing
- Service level agreement (SLA) to ensure high uptime and timely maintenance/repair

Recommended Role for Local Government (County/Cities):
- Identify priority public fast-charging locations based on commercial activity and site readiness
- Coordinate with utilities on power availability and upgrade timing
- Support permitting, site access, and public-private partnerships
- Help secure grants & rebates
- Improve wayfinding to charging locations

Public Corridor Fast Charging (DCFC)

Overview

Public Corridor Fast Charging supports EV drivers traveling long distances along major highways and regional routes. These stations enable quick recharging during travel and are critical for enabling reliable intercity and regional EV trips. This charging type is provided through DC fast chargers (DCFC) and is best suited for locations where drivers stop for 15-45 minutes.

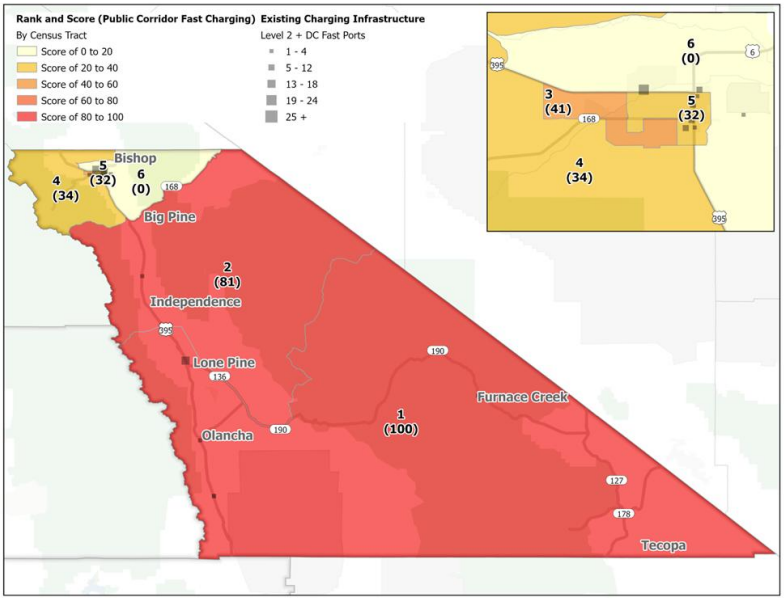
Charging Level	DCFC
Description	Fast charging located along major travel corridors, serving drivers making interregional or long-distance trips. These stations are typically co-located with travel-serving amenities.
Typical Users in Need	Road trippers, tourists and recreational visitors, interregional commuters

Needs Across Inyo County

Needs Analysis: To understand the need for additional public corridor fast chargers, a systematic approach evaluated regional EV adoption, existing charging infrastructure access, socioeconomic factors, environmental justice priorities, travel activity, and commute patterns to identify high- and moderate-demand areas.

> ***"Corridor fast charging is the backbone of long-distance EV travel, connecting communities and supporting tourism."***

Darker areas on the map below correspond to a higher need for Public Corridor Fast Charging. The analysis was conducted at the census tract level, which divide the U.S. by local population distribution. This leads to fairly large census tracts in sparsely populated areas.



Results:
The analysis shows that the highest need for public corridor fast charging is concentrated along the US-395 and SR-190 corridors, which serve as the primary north-south and east-west travel routes through Inyo County. These corridors support long-distance travel between Southern California, the Eastern Sierra, Death Valley National Park, and Nevada.

Key communities along these routes (Bishop, Big Pine, Independence, Lone Pine, Olancha, and Furnace Creek) are well positioned to serve as strategic charging locations due to their proximity to highway access, available services, and role as travel stopping points.

Charger Deficiency/Gap: Based on data from the Alternative Fuels Data Center (AFDC), there are currently about **96 public DC fast charging ports** installed in Inyo County. It is difficult to estimate how many of these strictly serve corridor charging. The County needs about **~30 public corridor DCFC ports** by 2035.

Public Corridor Fast Chargers Needed in Inyo County in 2035:

Tract	Existing Public DC Fast Chargers	Public Corridor Fast Chargers Needed by 2035
000100 – Bishop (north/east)	24	<5
000200 – Northwest County	-	<5
000300 – Bishop (west)	-	<5
000400 – Bishop (central)	23	<5
000500 – Big Pine/ Independence	2	5-10
000800 – Lone Pine/ Death Valley	47	21-40
Total	**96**	**~30**

Public Corridor Fast Charging (DCFC) (2/2)

Site Selection Criteria

Public corridor fast charging stations should be provided at the following **suitable site types:**

- Gas stations and travel centers along highways
- Convenience stores and quick-service restaurants
- Highway-adjacent retail centers and grocery stores
- Visitor centers and gateway locations (e.g., parks, recreation areas)
- Hotels or lodging located near major travel routes

The following **criteria** can be used to vet potential sites for public corridor fast charger installations:

Area	• Located directly along or close to major corridors (e.g., US-395) • Positioned at logical stopping intervals for long-distance travel
Site Access	• Easy ingress/egress from (or near) highways • 24/7 public accessibility with minimal detour from travel route
Site Ownership	• Willing site host with long-term site control or lease potential • Compatibility with commercial or highway-serving uses
On-Site Placement	• Space for multiple high-power chargers and vehicle queuing • Safe circulation for pull-through or trailer-compatible charging

Site Design Recommendations

Charger & Parking Configuration:
- Install multiple DC fast charging ports (4-8+ per site) to support corridor demand
- Include high-power chargers (150-350 kW where feasible)
- Provide pull-through or trailer-friendly stalls where space allows
- Ensure ADA-compliant access and safe vehicle circulation
- Use bollards or barriers to protect equipment

Electrical and Utility Considerations:
- Coordinate early with utilities for high-capacity service and transformer needs
- Plan for significant electrical loads and future expansion (cost + schedule)
- Consider energy storage or load management where grid capacity is constrained

Site Amenities & Visibility:
- Co-locate with restrooms, food, and convenience services
- Provide adequate nighttime illumination for safety and usability (minimum 2.0 foot-candles at ground level), include security cameras or public visibility where possible
- Signage: post "EV Charging Only" signs with applicable time limits, include wayfinding signs from nearby arterials or parking entrances
- Use canopies or shade structures where possible, integrate solar PV for offsetting operational energy

User Experience:
- Support multiple payment methods (credit card, RFID, mobile app)
- Ensure real-time network status visibility through online maps (e.g. PlugShare) and AFDC integration
- Provide clear instructions and customer support access

Maintenance and Reliability:
- Require ≥97% uptime, prompt repair (≤48 hours), and preventive maintenance every 6-12 months via an SLA
- Implement remote monitoring and proactive maintenance
- Ensure all-weather functionality (snow clearance, drainage, heat considerations)

Implementation & Ownership Models

Public corridor fast chargers are primarily designed to support long-distance travel. These stations are typically located along major highways and rely on partnerships between public agencies, utilities, and private charging providers to deliver reliable, high-power charging access.

Suitable implementation models:
- Publicly-supported sites:
  - Public agency provides land, funding support, or site preparation, with private partner installation and operation
  - Land-lease agreements (County/City lease property to a charging provider)
- Privately-led sites:
  - Direct private investment by EV charging networks, fuel retailers, or travel-oriented businesses
  - Utility-supported or grant-funded installations (e.g., NEVI, CEC programs)

Suitable operating & pricing models (depending on site conditions and site host preferences):
- Fee-based access (standard) – per kWh (preferred), or per-minute/session pricing where required
- Idle fees or time-based pricing to encourage turnover and maintain availability
- 24/7 public access with networked operation (payment processing, monitoring, support)

Recommended Role for Local Government (County/Cities):
- Identify priority sites along key corridors (e.g., US-395, SR-190) based on travel demand and spacing needs
- Coordinate with utilities on power availability, interconnection, and upgrade timelines
- Support site access, permitting, and right-of-way coordination
- Help secure state and federal funding (e.g., NEVI, CEC)
- Improve highway and local wayfinding signage to charging locations

ES.3. HOW TO USE THIS DOCUMENT

This document is comprised of six main chapters and eight appendices to supplement the information provided in the main chapters and supply methodology documentation. To jump ahead to a specific chapter or appendix, simply click the bold-printed header names below.

Acronyms and other terms used in this plan are defined above under **Acronyms and Terms**.

Chapter 1 (Introduction): The first chapter provides an overview of the project's purpose, relevant regulations, planning and policy context as well as a summary of the document structure.

Chapter 2 (Existing Conditions): This chapter summarizes the existing conditions for zero-emission vehicle (ZEV) adoption and charging infrastructure in Inyo County. This baseline analysis informs prioritizing strategies, infrastructure investments, policy recommendations, and inclusive outreach strategies.

Chapter 3 (Community and Stakeholder Engagement): This chapter provides an overview of the engagement approach, targeted audiences, and how the feedback shaped the final plan.

Chapter 4 (Demand Forecast & Siting Analysis): This chapter presents analytical findings on where, how much, and what types of EV charging infrastructure will be needed in Inyo County over time, based on a needs and suitability analysis. The chapter also identifies numerous candidate sites across the county to be considered for charging infrastructure deployment.

Chapter 5 (County Fleet Transition and Charging Infrastructure Recommendations): This chapter documents the recommended strategy for charging of Inyo County's future EV fleet at the 9 prioritized facilities, along with explanation of how these recommendations were informed by the analysis of technical considerations including energy projections, charging strategies, implementation phases, and estimated capital and operating costs.

Chapter 6 (Implementation Plan): This final chapter provides a clear, actionable roadmap to guide the Inyo County Local Transportation Commission and its member agencies in deploying EV charging infrastructure for both public and fleet use.

The appendices include:

Appendix A (Existing Conditions Assessment): This appendix describes the current environment regarding EVs in Inyo County in detail, including its regional location, major transportation facilities, socioeconomic factors, EV adoption, and existing public charging infrastructure.

Appendix B (Documentation of Stakeholder and Public Engagement): This appendix is comprised of the Community Engagement Plan used to solicit input, documentation of public and stakeholder meetings as well as the online platform (Social Pinpoint) and examples of material for stakeholder use.

Appendix C (Charger Needs Analysis: Documentation of Scoring Metrics): This appendix consists of documentation of scoring metrics and data sets used to prepare charger siting recommendations.

Appendix D (Potential EV Charger Sites: Information Sheets): This appendix shows and describes the example sites for new EV charging deployments identified during the Plan development in greater detail. Each site information sheet includes a table with key site properties, name, address, the applicable charging use case(s), relevant site features, and potential charger installations, as well as an aerial image of the site and a regional map highlighting its location relative to adjacent communities and roadways.

Appendix E (Overview of Alternative Fleet EV Charging Strategies): This appendix provides an overview of possible charging strategies for future electric vehicles (EVs) in Inyo County's fleet given the County's operational needs including the operational workings, benefits, and disadvantages of both a dedicated and a shared charging strategy.

Appendix F (Site-Specific Fleet Charging Infrastructure Recommendations): This appendix consists of detailed fleet charging infrastructure installation recommendations for nine Inyo County fleet domiciles.

Appendix G (Charging Infrastructure Cost Estimation Methodology): This appendix outlines DKS Associates' approach to estimating capital expenditures (CAPEX) and operations and maintenance expenditures (OPEX) for electric vehicle supply equipment (EVSE) deployment, as applied to fleet charging infrastructure cost estimates provided in this plan.

Appendix H (Funding Opportunities): This appendix provides a summary of federal, state, regional, utility, and private-sector programs expected to be active through the foreseeable future.

1 INTRODUCTION

1.1 PURPOSE

Like most rural counties in California and other states, Inyo County has seen slow uptake of electric vehicles but is showing forward thinking in its desire to develop and implement an actionable plan for EV readiness moving forward. While the political climate has shifted in recent months, resulting in elimination of consumer tax credits for EV purchases as well as reduction of grants and funding available for fleet transitions to EVs, it remains clear that while adoption of EVs may not be accelerating as it has in recent years, there is still a need to prepare for the inevitable increases in EV adoption projected into the future. Inyo County wishes to position itself in order to support adoption of EVs by its residents and visitors, as well as for the fleet vehicles owned by the County and its jurisdictions.

1.2 RELEVANT REGULATIONS

The state of California has established the most comprehensive zero-emission vehicle policies in the nation. These regulations create binding requirements for vehicle manufacturers, fleet operators, and in some cases vehicle purchasers. The following sections summarize the key state programs affecting Tulare County.

The information in this section reflects California policy and regulatory status as of November 2025. For the most current information on state ZEV regulations, please visit the California Air Resources Board website at https://ww2.arb.ca.gov/.

1.2.1 CALIFORNIA AIR RESOURCES BOARD REGULATIONS

California has adopted several regulatory programs to accelerate the transition to zero-emission vehicles and reduce greenhouse gas (GHG) and air pollutant emissions from the transportation sector[1]. This section provides an overview of four major programs: Advanced Clean Cars II, Advanced Clean Fleets, the Innovative Clean Transit (ICT) Regulation, and the Clean Miles Standard.

1.2.1.1 Advanced Clean Cars II (ACC II)

ACC II accelerates the transition to zero-emission light-duty vehicles, requiring manufacturers to increase the share of ZEVs sold each year starting in 2026. By 2035, all new passenger cars, SUVs, and light trucks sold in California must be ZEVs, such as battery-electric or hydrogen fuel cell

[1] California Air Resources Board. (2024). *Zero-Emission Vehicle Program*. https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about

vehicles. The regulation also tightens emissions standards for remaining gasoline vehicles, with an overall goal of reducing light-duty vehicle emissions by 50% by 2040 compared to today[2].

1.2.1.2 Advanced Clean Trucks (ACT)

The ACT regulation requires manufacturers of medium- and heavy-duty vehicles (Classes 2B–8) to sell an increasing percentage of ZEVs beginning in 2024. Targets vary by vehicle class, reaching 55% ZEV sales for Class 2B–3 trucks, 75% for Class 4–8 straight trucks, and 40% for truck tractors by 2035. ACT also includes one-time reporting requirements for large fleets to facilitate planning[3].

The ACT regulation establishes a ZEV sales requirement for manufacturers and a one-time reporting requirement for large entities and fleets. Under ACT, manufacturers who sell medium- and heavy-duty vehicles must sell an increasing percentage of ZEVs between 2024 and 2035.

1.2.1.3 Advanced Clean Fleets (ACF)

Adopted in 2023, ACF complements ACT by setting phased ZEV purchase and fleet turnover requirements for fleet operators, including state, local, and (if authorized) private fleets. Starting in 2024, fleets must begin purchasing ZEVs, with full transition deadlines ranging from 2035 to 2045 depending on fleet type and size[4].

As of November 2025, California's Advanced Clean Fleets regulation has been significantly curtailed. Following legal challenges from multiple states and industry groups, CARB withdrew its EPA waiver request in January 2025 and agreed to formally repeal the High-Priority Fleet and Drayage Fleet requirements. CARB proposed the repeal in August 2025, with final action expected by August 2026. The regulation's 2036 requirement for 100% zero-emission sales of new medium- and heavy-duty trucks will not be enforced unless CARB obtains EPA approval. Only the State and Local Government Fleet requirements remain in effect, as these do not require federal waivers.

1.2.1.4 Innovative Clean Transit Regulation

ICT requires California's public transit agencies to transition to 100% zero-emission bus fleets by 2040. Large agencies began purchasing ZEBs in 2023, and small agencies must meet phased purchase requirements beginning in 2026. The regulation prioritizes deployment in disadvantaged communities and mandates that agencies prepare detailed ZEB rollout plans[5].

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[2] California Air Resources Board. (2024). *Advanced Clean Cars Program*. ttps://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about

[3] California Air Resources Board. (2021). Zero-Emission On-Road Medium-and Heavy-Duty Strategies. https://ww2.arb.ca.gov/resources/documents/zero-emission-road-medium-and-heavy-duty-strategies

[4] California Air Resources Board. (2024). Advanced Clean Fleets Regulation Exemptions and Extensions Overview. https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-exemptions-and-extensions-overview

[5] California Air Resources Board. (2024). Advanced Clean Fleets. https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit

1.2.1.5 Clean Miles Standard

The Clean Miles Standard (CMS) addresses GHG emissions from ride-hailing services, such as Uber and Lyft, which represent a growing share of California's transportation landscape.

Established under Senate Bill 1014, the CMS requires transportation network companies (TNCs) to:

- Reduce GHG emissions per passenger mile traveled,
- Increase the share of zero-emission miles traveled on their platforms.

By 2030, 90% of all TNC vehicle miles traveled must be zero-emission, and emissions per passenger mile must reach zero[6].

TABLE 1: SUMMARY TABLE OF MAJOR CARB ZEV REGULATIONS

PROGRAM	SECTOR TARGETED	MAIN REQUIREMENT	TIMELINE
ADVANCED CLEAN CARS II	Passenger vehicles	100% ZEV new sales	By 2035
ADVANCED CLEAN TRUCKS	Medium/heavy-duty vehicles	Progressive ZEV sales targets	By 2035
ADVANCED CLEAN FLEETS	Medium/heavy-duty fleets	Gradual ZEV fleet turnover	2035–2045
INNOVATIVE CLEAN TRANSIT	Public transit	100% ZEB fleets	By 2040
CLEAN MILES STANDARD	Ride-hailing	90% ZEV miles traveled	By 2030

1.3 REGIONAL PLANNING EFFORTS

The Inyo County 2023 Regional Transportation Plan (RTP) includes an explicit environmental objective to align transportation policy with California's climate goals, including supporting statewide global warming emissions targets established under AB 32.

Within the RTP's Policy Element, several policies directly connect regional transportation decision-making to GHG reduction strategies and create a policy basis for EV planning:

- Policy 7.5 calls for considering alternative transportation technologies, explicitly including Zero Emission Vehicles.
- Policy 7.6 calls for coordination with local and neighboring jurisdictions on programs/projects aimed at reducing or offsetting regionally produced GHG emissions.
- Policy 7.7 calls for developing a Zero Emission Vehicle Readiness Plan for the region in cooperation with Caltrans and neighboring jurisdictions.

[6] California Air Resources Board. (2024). *TNC Driver Fact Sheet: Clean Miles Standard Program*. https://ww2.arb.ca.gov/our-work/programs/clean-miles-standard

The RTP also includes a dedicated discussion of Zero-Emission Vehicles, noting expected growth in EV/ZEV adoption and the associated increase in demand for charging infrastructure, and it identifies US 395 as an Alternative Fuel Corridor in the context of NEVI/California deployment planning—reinforcing corridor charging as a regional priority.

EV planning is a direct implementation pathway for RTP Policy 7 (Environment), translating broad GHG-reduction intent into actionable strategies such as ZEV readiness planning, coordinated corridor charging investment, and targeted expansion of charging access to reduce reliance on internal combustion travel over time.

The RTP notes that the Innovative Clean Transit (ICT) regulation requires the Eastern Sierra Transit Authority (ESTA) to develop and submit a Zero-Emission Bus Rollout Plan to CARB, and it references the electrification feasibility study as part of this transition.

ESTA has produced a Zero-Emission Bus Feasibility Study (2024) describing its service area (Inyo and Mono counties) and the effort to prepare a fleet electrification plan to support a transition to zero-emission buses.

Inyo County is associated with an identified funding effort titled "Advancing Transit Service Electrification and Expansion in Inyo County," which explicitly links transit electrification and service improvements to the goal of reducing greenhouse gas emissions and improving service in key communities.

1.4 LOCAL POLICY FRAMEWORK

Local jurisdictions in Inyo County may have various policies and codes affecting EV infrastructure deployment. Most cities have adopted the California Building Code requirements for EV charging readiness in new construction. However, streamlining of permitting processes, development of public charging programs, and integration of EV considerations into general plans and climate action plans varies across jurisdictions.

California law includes provisions requiring local governments to approve EV charging equipment installations in a timely manner and limit unreasonable restrictions. AB 1236 requires expedited permitting approval for Level 2 charging installations. SB 1000 requires environmental justice elements in general plans which can be leveraged to address EV access in disadvantaged communities. Local implementation of these state requirements affects the ease of charging station deployment.

As ZEV adoption accelerates, local jurisdictions will need to update policies to support infrastructure deployment. This includes revising zoning codes to facilitate charging installations, adopting building electrification measures, ensuring adequate electrical capacity in redevelopment areas, and coordinating with utilities on grid planning.

2 EXISTING CONDITIONS

This chapter presents the existing conditions for zero-emission vehicle (ZEV) adoption and charging infrastructure in Inyo County. The analysis serves as the foundation for the development of the EVCINP, which aims to accelerate the equitable adoption of ZEV technologies, expand access to charging infrastructure, and support the County's broader climate, mobility, and air quality goals. This baseline analysis informs prioritizing strategies, infrastructure investments, policy recommendations, and inclusive outreach strategies.

The following provides a summary of key observations made in the existing conditions assessment, which is included in full in **Appendix A**.

2.1 INYO COUNTY DEMOGRAPHICS

2.1.1 REGIONAL CONTEXT

Inyo County lies along the eastern Sierra Nevada, serving as a major north–south gateway between Northern and Southern California, and providing access to Death Valley. Its geography spans arid desert basins to steep mountain environments. The county's population is 19,016 (as of 2020), with Bishop as the only incorporated city (3,819 residents). Several unincorporated communities range from 760 to 2,750 residents, including Dixon Lane-Meadow Creek, West Bishop, Lone Pine, Big Pine, Independence, Furnace Creek, and Shoshone. The county includes five tribal communities totaling about 3,000 residents.

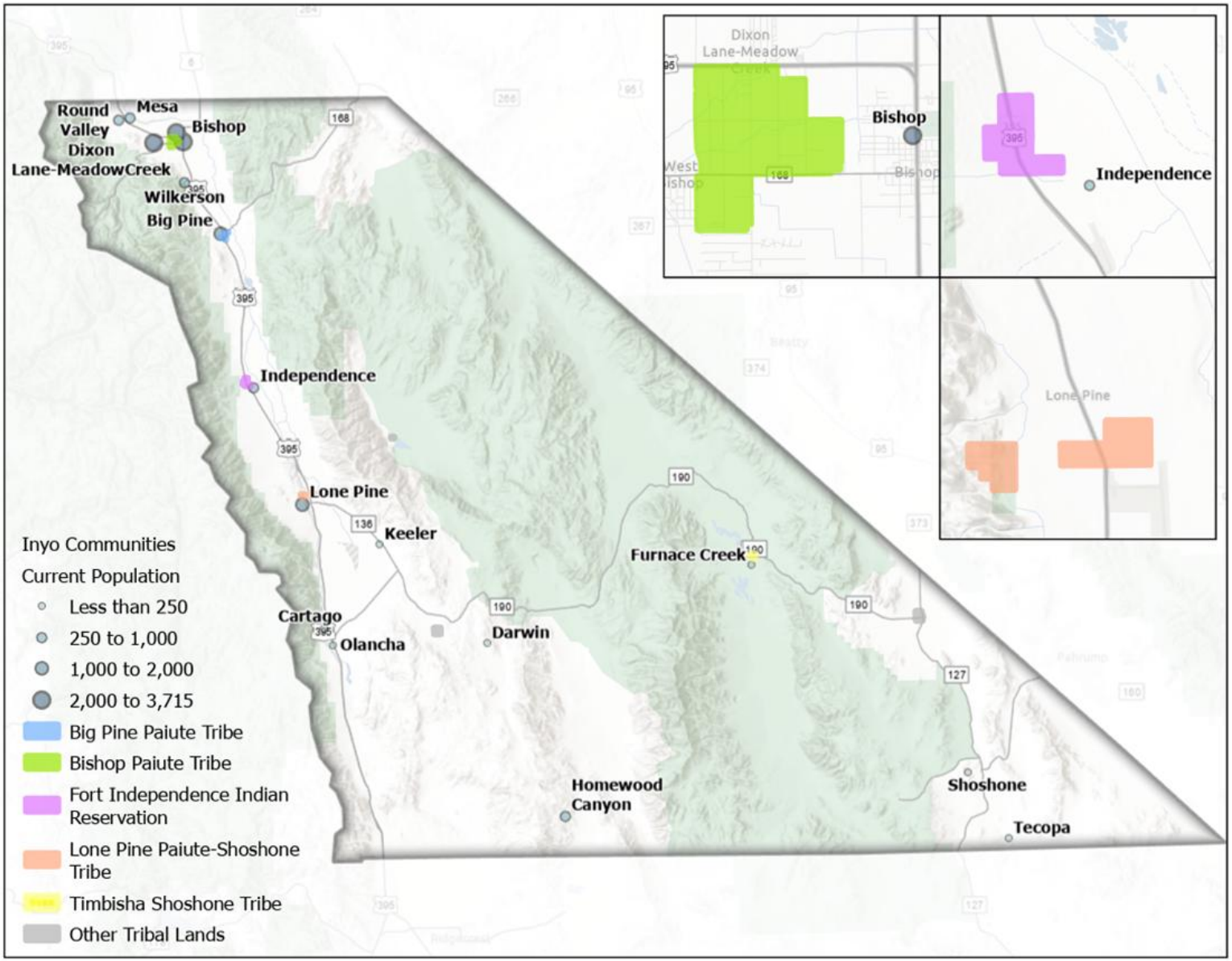


FIGURE 1: INYO COUNTY COMMUNITIES

2.1.2 COMMUTE PATTERNS

Data from the Longitudinal Employer-Household Dynamics (LEHD) program (a U.S. Census Bureau initiative)[7] shows Inyo County residents tend to commute much longer distances than the statewide average. Depending on the community, 40-50% of residents commute under 10 miles (similar to statewide), but a much larger share commute over 50 miles, especially in the Lone Pine and Death Valley census county divisions (CCDs). Directional commute flows by CCD closely align with the county's major travel corridors.

2.1.3 MULTI-FAMILY HOUSING

According to the U.S. Census American Community Survey[8], as of 2022, ~64% of housing units in Inyo County are single-family detached, whereas ~36% are other types (such as apartments, condos, mobile homes, and RVs). Countywide, ~900 multi-family dwelling units (MFDUs) exist, with Bishop containing the majority (790 units). Since most MFDUs lack onsite charging, access to nearby public charging is critical for multi-family residents.

2.1.4 DISADVANTAGED COMMUNITIES

CalEnviroScreen 4.0[9] is a statewide model that combines a pollution burden score (measures pollution exposures such as air quality, drinking water contamination, pesticide use, toxins from facilities, and traffic density) that an area faces with a population characteristics score (measures the sensitivity of the local population in terms of health status, age, and socioeconomic factors). This results in an overall score that ranges from 0 to 100%. CalEnviroScreen 4.0 identifies no areas in Inyo County as disadvantaged (≥70% vulnerability score), though the southern half of the county generally scores higher (i.e. is subject to higher pollution and/or population sensitivity). Also, federal Justice40 designations show Low-Income Communities (LICs) in much of southern Inyo County, including Lone Pine, Furnace Creek, and Shoshone.

[7] https://onthemap.ces.census.gov/

[8] https://www.census.gov/programs-surveys/acs.html

[9] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

2.2 PROGRESS TOWARD ELECTRIFICATION OF TRANSPORTATION

2.2.1 ELECTRIC VEHICLE ADOPTION

Inyo County has experienced gradual growth in zero-emission vehicles (ZEVs), primarily battery-electric vehicles (BEVs) and, to a lesser extent, plug-in hybrid electric vehicles (PHEVs). However, adoption continues to lag far behind statewide trends, reflecting patterns typical of rural California counties.

As shown by California Energy Commission data[10], both Inyo County and the state had very few ZEVs in 2010. By 2024, the statewide total had risen to nearly 1.9 million ZEVs, while Inyo County had just over 300. ZEVs made up 6.4% of all vehicles statewide but only 1.4% of vehicles in Inyo County (see **Figure 2**). Of the county's 2024 ZEV population, 175 were BEVs (58%) and 127 were PHEVs.

BEVs, PHEVs, and FCEVs:
Are all ZEVs created equal?

Zero-emission vehicles (ZEVs) include BEVs, PHEVs, as well as hydrogen fuel cell electric vehicles (FCEVs). However, in the light-duty passenger vehicle segment, FCEVs have seen much lower adoption than the other two powertrain technologies. This is largely due to factors such as lack of FCEV models, the high cost of hydrogen fuel, and very high hydrogen fuel and fueling station development costs, which has led to only a very sparse network of hydrogen fueling stations. In Inyo County, there are no hydrogen fuel stations and to date, no direct FCEV sales have been recorded by the CEC. One Toyota Mirai FCEV was registered in Inyo County during 2020, but since then no FCEV has been part of the light-duty vehicle population in the County. Hence, virtually all cited ZEV population and sales figures in this report refer to BEVs and PHEVs.

Light-duty vehicle sales data from 2021–2024 shows strong and consistent statewide growth in ZEV market share, from about 13% in 2021 to roughly 25% in 2024. In contrast, Inyo County's ZEV sales share fluctuated considerably and increased more slowly, from around 5% in 2021 to roughly 9% by 2024. This highlights the county's continued lag behind broader statewide adoption trends.

Fuel cell electric vehicles (FCEVs) are essentially absent in Inyo County largely due to lack of hydrogen refueling stations.

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

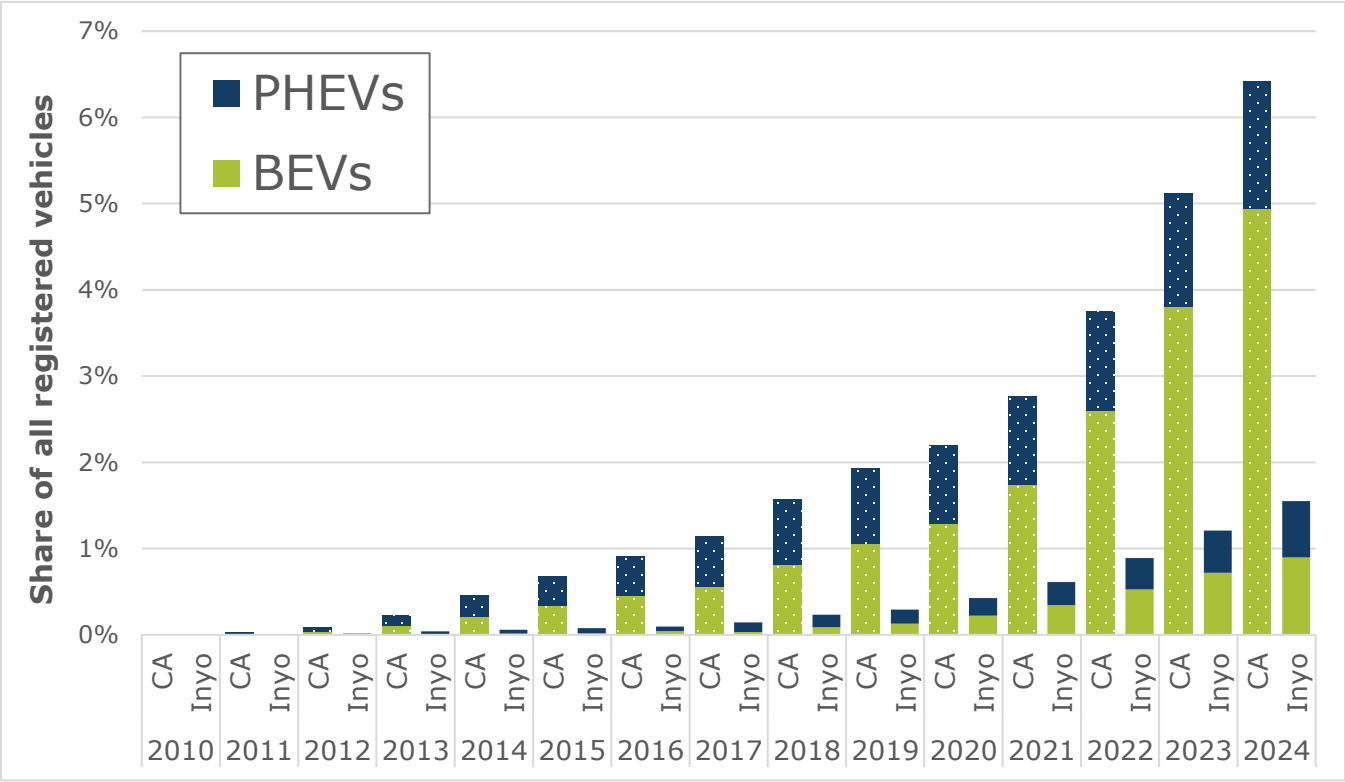


FIGURE 2: BEV AND PHEV ADOPTION IN INYO COUNTY AND CALIFORNIA BY YEAR

2.2.2 CVRP DATA

From 2010–2023, Inyo County received 44 total rebates through California's Clean Vehicle Rebate Project (CVRP)[11]. These total about $103k, representing just 0.01% of statewide rebate funding. Overall, the rebate statistics indicate underutilization of CVRP incentives relative to the County's share of the statewide vehicle population.

2.2.3 EXISTING EV USAGE IN INYO COUNTY

Replica[12] is a "big data" source that estimates trips nationwide and allows users to extract data for desired sub-areas, both by actual area of travel and by home location of drivers themselves.

Replica data shows that only 0.7% of trips/VMT (vehicle miles travelled) involving Inyo County are by BEVs, lower than the County's BEV share of vehicle ownership, indicating that existing EVs are underutilized compared to other vehicles. BEV drivers tend to have higher incomes, multiple household vehicles, and single-family residences, each more so than non-EV drivers.

[11] https://cleanvehiclerebate.org/en/rebate-statistics

[12] https://www.replicahq.com/

2.3 EXISTING CHARGING INFRASTRUCTURE IN INYO COUNTY

2.3.1 OVERVIEW OF ELECTRIC VEHICLE CHARGING TYPES

Typical EV charging infrastructure consists of three main types, based on power output and therefore potential charging speed. The three main categories include "Level 1" which is a typical 110- or 120-Volt AC outlet, "Level 2" which typically consists of a 220- or 240-Volt energy source, and "Level 3" or DC Fast Charge, which typically consists of a higher power (480 Volt or higher) power source. For the purposes of this document, Level 1 is not discussed further, as it typically involves simply plugging into existing outlets and is hardly ever used for public charging, while Level 2 and DCFC are discussed in more detail. One often-used term in the EV charging industry is electric vehicle supply equipment (EVSE), which describes all electrical hardware and software needed to safely connect an EV to a power source for recharging. The terms "chargers", "charging stations", and "EVSE" can be and are used interchangeably in this document.

2.3.1.1 Level 2 Chargers

The most common type of charging stations or EVSE is known as a Level 2 charger, though, technically speaking, the charger is on board the EV to convert alternating current (AC) power to direct current (DC) for storage in the EV's battery. In that sense, Level 2 EVSE is the electrical supply that powers an EV's onboard charger. In general, Level 2 EVSE supplies 220-240 Volts of AC and is usually capable of delivering 6-12 kilowatts (kW) of power, though some Level 2 EVSE can deliver up to 19.2 kW when supplied by 100-amp circuits. Level 2 EVSE can typically add between 15 and 40 miles of range to an EV per hour of charge, depending on the amperage of the circuit and the charging capabilities of the vehicle. As illustrated in **Figure 3**, there are two main connector types for Level 2 EVSE, the J1772 and the J3400 connector. Until 2025, the J1772 connector was the most common. It is compatible with all EVs other than Tesla EVs (which need to use an adapter to charge using a J1772 connector). Since then, the often faster Tesla connector, now known as the North American Charging Standard, or NACS, has been standardized by SAE International in 2023–2024 as the J3400 connector. This connector is currently only compatible with Tesla vehicles without an adapter, however, many vehicle manufacturers have indicated that they will be adopting the NACS plug starting in 2025. It should be noted that, while most Tesla Destination chargers (the kind currently deployed locally) have Tesla connectors, the company has started producing and selling destination chargers with J1772 connectors.

J1772 **J3400 (NACS) (Tesla)**

FIGURE 3: LEVEL 2 CONNECTOR TYPES

Given that an EV with a depleted battery requires several hours or even overnight to recharge, drivers typically use Level 2 chargers for the two most common charging applications—residential and workplace charging. Residential charging typically takes place overnight while the EV is parked at the driver's home. The residential charger generally belongs to the owner of the home or property in the case of rentals, though some renters may use available 240 V or even 120 V (Level 1) outlets to plug in their own charger. Workplace charging occurs at the EV driver's place of employment with the charger provided by the employer or property owner/manager. The relatively long nightly parking (dwell) time for residential charging or daily dwell time for workplace charging makes this practical and convenient, and Level 2 charging can be provided at relatively low costs for many applications.

FIGURE 4: LEVEL 2 CHARGERS – OASIS AT DEATH VALLEY

Hotels, restaurants, and other local destinations may provide Level 2 chargers operated by commercial charging networks for public use as a customer amenity, often providing free or low-cost charging for patrons such as the one shown in **Figure 4**. Many models of networked or smart Level 2 chargers are available that can be managed to provide scheduled or reserved charging, automated load management, or demand response functionality to avoid charging during peak power demand periods reducing the cost of electricity.

2.3.1.2 DC Fast (Level 3) Chargers

As previously discussed, EVs have onboard chargers capable of converting AC power to DC for storage in their battery packs. An EV can be charged faster directly through DC power using powerful chargers sometimes referred to as Level 3 or simply DC Fast Chargers (DCFC). These operate on 400+ Volts and are currently capable of providing between 25 kW and 350 kW of power. These chargers can add anywhere between 60 miles to 500+ miles of range per hour of charge depending on the power supply, charger rating, and EV's charging acceptance rate.

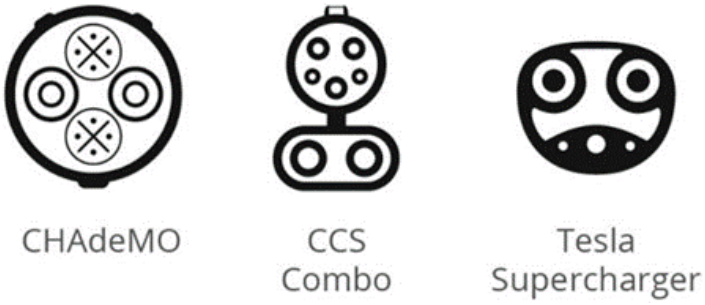


FIGURE 5: DCFC CONNECTOR TYPES

As illustrated in **Figure 5**, there are three main types of connectors associated with DC Fast chargers. The first and oldest type of charging connector is the CHAdeMO connector. This connector was developed in Japan and is typically compatible with vehicles manufactured in Japan (such as the Nissan Leaf) and some older European and North American EVs. Typically, CHAdeMO

chargers operate at a maximum of 50 kW power. The second type of DCFC connector is the CCS connector (more commonly known as simply "CCS") consisting of AC connectors in the same pattern as the J1772 connector above two DC connectors. This connector was developed more recently than CHAdeMO and was compatible with most EVs produced prior to 2025 or 2026. Newer Nissan models use CCS chargers, so CHAdeMO is expected to be replaced by CCS going forward. CCS chargers deliver between 50 kW and 350 kW of power, making them capable of the fastest maximum charging speeds currently available to light-duty EVs, depending on the vehicle being charged. It should be noted that lower-capacity plug-in hybrid vehicles (PHEV) typically cannot use DCFC connectors. DCFC is the preferred charging technology for opportunity charging facilities serving travelers along freeway corridors and for the public when in need of a quick charge while performing short errands like highway locations as illustrated in **Figure 6** and dining out. On a per-unit basis, DC Fast Chargers are far more expensive to purchase and install (including required electrical service upgrades) than Level 2 chargers though they can charge far more EVs within the same amount of time. They are also more likely to incur demand charges from utilities and require more maintenance. Due to the higher capital and operations costs, users pay higher per-kWh charging costs in exchange for the convenience of much quicker charging speeds.

FIGURE 6: DCFC AT HIGHWAY REST STOP

DC Fast Chargers that can deliver greater than 150 kW are considered "high power" chargers due to their ability to charge EVs at much faster rates than typical 50kW chargers commonly used for public EV charging. High-power DC Fast Chargers have charging speeds ranging from 150 – 350kW, which allows a typical light-duty EV to charge to 80% in 35 minutes or less, depending on the EV's acceptance rate and charger's capability. With such rapid charging speeds, high-power chargers are especially suitable for interregional travelers in need of a quick charge as well as for trucks and other heavy-duty EVs needing to charge large-capacity batteries. For this reason, the National Electric Vehicle Infrastructure (NEVI) Formula Program requires that new chargers funded by the program operate at a minimum of 150 kW. Since California's share from the NEVI Formula Program is estimated at $384 million over 5 years and significant additional discretionary Charging and Fueling Infrastructure (CFI) grant program funding will also be available, a major focus of this project will be planning for future high power charger deployment. Because of their much higher purchase and installation costs and power demands, it is

FIGURE 7: RIVIAN ADVENTURE NETWORK DCFC

generally more cost-effective to cluster high-power chargers near major transportation corridors for convenient access.

2.3.1.3 Tesla DCFC/High Power Chargers

FIGURE 8: TESLA SUPERCHARGER

As with Level 2 chargers, Tesla has its own DCFC network that up until recently was exclusively for use by Tesla vehicles. These stations use the same Tesla connector as on its Level 2 chargers shown previously. Tesla DCFC includes 72 kW "urban DC Fast chargers" as well as second (V2), third (V3), and fourth (V4) generation high-power chargers branded as "Superchargers" that have maximum charging speeds up to 150 kW, 250 kW, and 350 kW respectively. As stated previously, Tesla has recently renamed their connector the North American Charging Standard (or NACS) and many vehicle manufacturers have adopted the NACS plug in 2025 or 2026. A number of manufacturers provided adapters free of charge or made adapters available for sale to their customers in advance of the transition. Beginning in late 2024, Tesla has also rolled out a number of "Magic Docks" at their charging stations that include a built-in adapter for CCS vehicles allowing them to use the Tesla Superchargers, however these are still fairly limited in number and are not available in all areas.

2.3.1.4 Megawatt Charging System (MCS)

An even more powerful charging standard called the Megawatt Charging System (MCS) is beginning to be deployed to be able to charge medium and particularly heavy-duty EVs faster than current DCFCs are capable of. CharIN, which also developed the popular Combined Charging System (CCS), is currently working on an MCS standard. The proposed MCS would be rated to deliver up to 3.75 MW of DC power and can be expected to become the worldwide standard fast charging system for medium- and heavy-duty commercial vehicles. The system, if established, could significantly reduce charging times to as little as 10-20 minutes, even for heavy-duty (Class 7 or 8) vehicles.

2.3.2 OVERVIEW OF EXISTING CHARGERS INSTALLED IN INYO COUNTY

The U.S. Department of Energy's Alternative Fuels Data Center (AFDC) provides an alternative fueling station locator using data for existing and planned stations. Data is provided by trade media, Clean Cities coordinators, infrastructure equipment and fuel providers, original equipment manufacturers, and regular station users. The station locator provides details about the station location, power level, plug, connector type, and charging network for alternative fueling stations. The data set also includes whether the charging station is available to the public or only accessible to certain users (i.e., private or "behind the gate").

AFDC data shows that there are currently 18 public Level 2 charge ports and 83 DC Fast Charge ports within the boundaries of Inyo County and its communities. **Table 2** shows the number of Level 2 and DC Fast Charge ports currently in Inyo County by EV charging network. The table shows that 14 of the 101 total charge ports are non-networked, while over half of the total charge ports are Tesla Superchargers.

For details on specific Level 2 and DC fast charging locations, see **Appendix A**.

TABLE 2: EXISTING CHARGING PORTS IN INYO COUNTY – BY EV NETWORK

EV NETWORK	LEVEL 2		DC FAST CHARGE (DCFC)			TOTAL
	J1772	TESLA	CHADEMO	CCS	TESLA	
TESLA SUPERCHARGER					52	**52**
RIVIAN ADVENTURE NETWORK				15		**15**
ELECTRIFY AMERICA			2	6		**6**
TESLA DESTINATION		6				**6**
BLINK	3					**3**
SHELL RECHARGE	2					**2**
EVGATEWAY	1					**1**
NON-NETWORKED	6		4	4		**14**
TOTAL	**12**	**6**	**6**	**25**	**52**	**101**
	18			**83**		

Figure 9 shows the locations of all charge ports in Inyo County colored by charging network. The figure shows a clustering of chargers in the Bishop area that include Tesla Superchargers, Rivian Adventure Network chargers, and Electrify America chargers all clustered in or close to Bishop. There are additional Tesla Superchargers at Lone Pine and Rivian Adveture Network chargers at Olancha and Shoshone.

In total, Tesla Superchargers represent approximately 50% of the total charge ports countywide, with 52 charge ports at three Supercharger locations, Rivian Adventure network has 15 charge ports at three locations, and Electrify America has 6 charge ports at one location. Blink has 3 charge ports at one location at Furnace Creek (Death Valley). There are 14 charge ports listed by AFCD as non-networked.

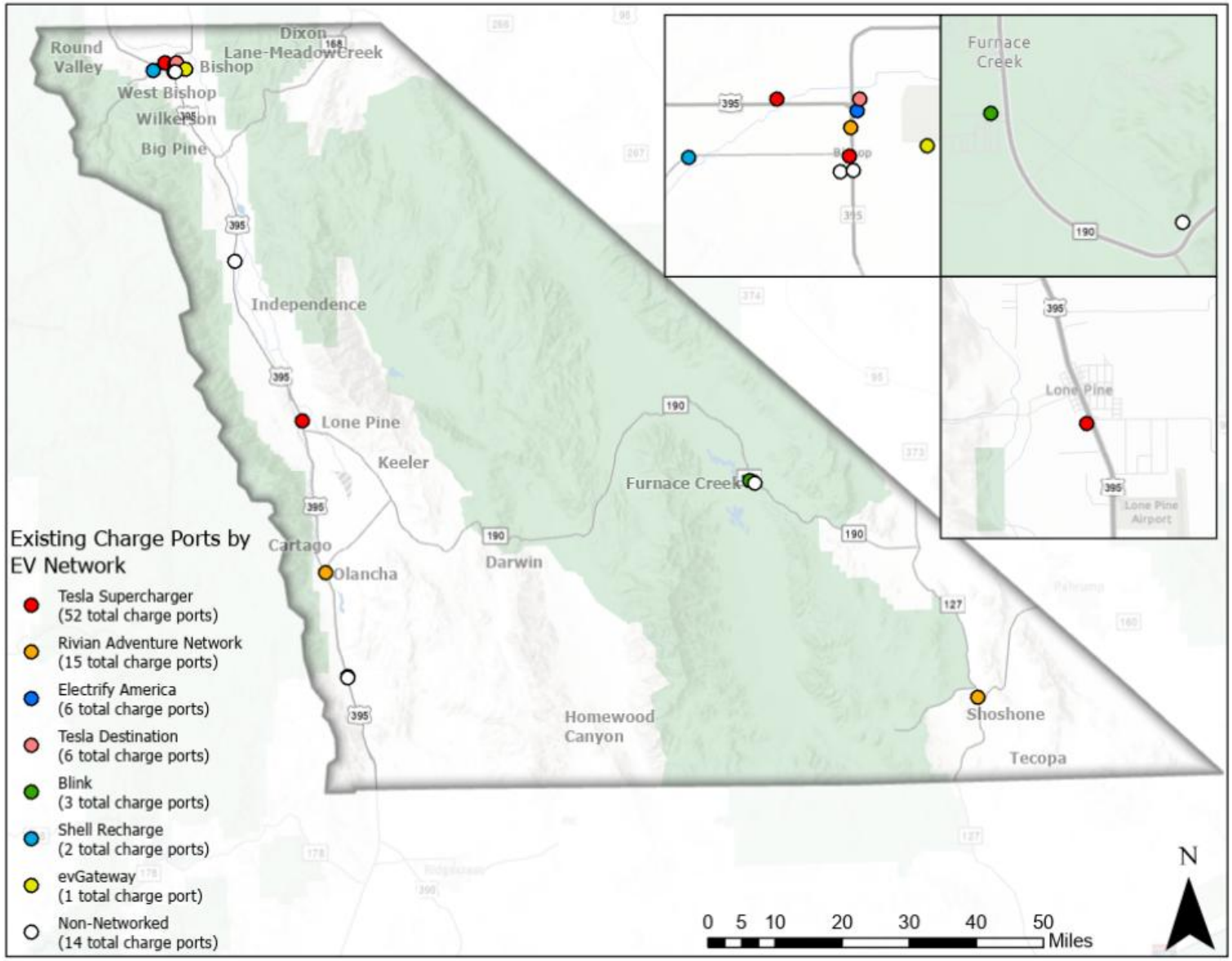


FIGURE 9: LOCATIONS OF EXISTING CHARGE PORTS BY EV NETWORK

Figure 10 shows the growth in Level 2, DCFC, and total chargers in Inyo County from 2010 through the end of 2024. The figure shows that growth in chargers was fairly limited between 2010 and 2019 and has since escalated more rapidly between 2019 and the end of 2024.

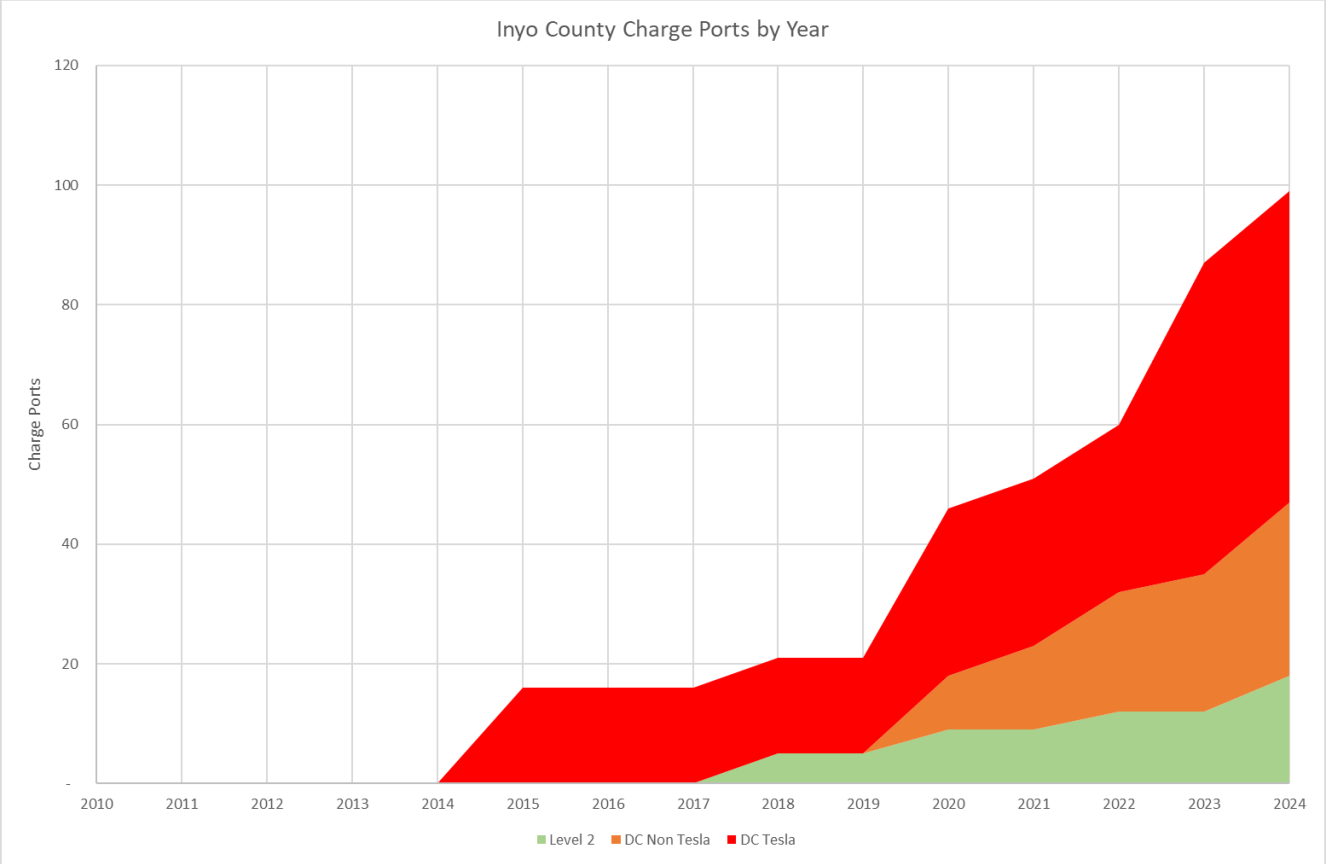


FIGURE 10: INYO COUNTY CHARGE PLUGS BY YEAR

2.3.3 CHARGING FOR MULTI-FAMILY HOUSING

A geographic analysis of existing MFDUs and public EV chargers indicates that a relatively small percentage of multi-family dwelling units are within a comfortable walking distance of ¼ mile while close to half of multi-family units are within a longer walk distance of ½ mile of existing public EV chargers. **Table 3** summarizes this data by community and Inyo County as a whole. The table shows that only multi-family units in Bishop have public Level 2 chargers (appropriate for overnight charging) within ½ or ¼ mile walking distance, while some units in Bishop and Lone Pine have public DC Fast Chargers (appropriate for quicker charging) within ¼ or ½ mile walking distance. **Figure 36** shows the locations of existing multi-family units and the ¼ and ½ mile walk sheds of existing Level 2 (L2) and DC Fast chargers countywide, along with the overlay to determine how many units are within walking distance of existing EV infrastructure.

TABLE 3: MULTI-FAMILY UNITS WITHIN WALKING DISTANCE OF PUBLIC EV CHARGERS

COMMUNITY	TOTAL MFDU	PERCENT WITHIN ¼ MILE WALK DISTANCE		PERCENT WITHIN ½ MILE WALK DISTANCE	
		L2	DCFC	L2	DCFC
BISHOP	790	3%	19%	12%	53%
BIG PINE	20	-	-	-	-
LONE PINE	75	-	-	-	32%
ROCKING K	9	-	-	-	-
COUNTYWIDE	**894**	**2%**	**11%**	**11%**	**49%**

2.4 ENERGY STORAGE IN INYO COUNTY

California leads the nation in grid-scale energy storage, using large battery systems to balance renewable energy production and improve grid reliability. These systems store excess electricity generated during off-peak hours and release it later in the day, particularly in the evening when solar generation declines and demand rises, reducing reliance on fossil fuels. Statewide battery storage has expanded rapidly from 500 megawatts (MW) in 2018 to more than 13,000 MW by late 2024. The state projects a need of 52,000 MW by 2045.

Inyo County has followed this upward trend, though at a smaller scale. According to California Energy Commission data, the county currently hosts about 61 MW of energy storage capacity, representing roughly 0.5% of the statewide total. Despite having only 46 installations, Inyo County's average installation size is significantly larger than the state average, at approximately 1,300 kW compared to 68 kW statewide. This is largely due to the presence of one of California's largest individual storage projects located in Little Lake. Additional, smaller installations are distributed across the county, contributing to its growing role in the state's energy storage portfolio.

2.5 KEY FINDINGS INFORMING PLAN DEVELOPMENT

The existing conditions analysis revealed several important dynamics that shape both the need for and feasibility of expanding EV charging infrastructure in Inyo County. These findings directly informed the development of this Plan.

- **EV adoption is growing but remains significantly below statewide levels:** By 2024, Inyo County had just over 300 registered ZEVs (about 1.6% of all vehicles, compared to 6.5% statewide). Adoption is concentrated around Bishop and surrounding communities, with limited uptake elsewhere. This slower growth reflects common rural barriers, including long travel distances, limited charging access, and fewer early adopters.
- **Public charging infrastructure is limited and unevenly distributed:** Across the county, there are 18 public Level 2 chargers and 83 DC fast charge ports, over half of which are Tesla Superchargers. Charger installations have accelerated since 2020, but infrastructure remains highly clustered:

- Bishop contains the densest network of both Level 2 and DCFC.
- Lone Pine, Olancha, Shoshone, and Furnace Creek host initial DC fast charging sites but limited or no Level 2 options.
- Large portions of the county, particularly between residential communities and across the western and central regions, remain outside a 20-mile Level 2 or 50-mile DCFC service area.

- **Long travel distances and corridor-based mobility patterns increase reliance on DC fast charging:** Residents and workers in Inyo County routinely travel far greater distances than the state average. In some Census County Divisions, a majority of commutes exceed 50 miles each way. Travel is predominantly oriented along US-395, the county's primary north–south spine and its most critical corridor for EV charging. This pattern reinforces the need for strategically spaced DCFC along US-395 and near activity centers that serve both residents and interregional travelers.
- **Multi-family housing residents have limited access to convenient charging:** Approximately 36% of all housing units countywide are not single-family homes, yet very few multifamily developments offer onsite EV charging. Only 2% of multifamily units fall within a ¼-mile walk of a public Level 2 charger, and 11% are within a ½-mile walk. Similarly, only 11% are within a ¼-mile walk of a DC fast charger. Because many renters cannot install home chargers, targeted public charging at or near multifamily housing is critical to equitable EV access in Inyo County.
- **Rural and low-income communities face heightened accessibility challenges:** Although no census tracts meet CalEnviroScreen's disadvantaged community criteria, federal Justice40 mapping identifies low-income communities (LICs) in the county's southern half, including Lone Pine, Furnace Creek, and Shoshone. These areas have limited public Level 2 charging and rely heavily on community- or corridor-based DCFC. Improving charging access in these locations supports equity goals and local mobility needs.
- **Increasing tourism volumes and regional travel patterns create additional demand for corridor charging:** Inyo County experiences high visitation due to destinations such as Death Valley National Park, Mt. Whitney, and other outdoor recreation areas. Replica data shows that BEV travel into and through the county is concentrated along state highways, particularly US-395. EV-driving visitors depend almost entirely on DC fast charging at key travel nodes, further emphasizing the need for reliable, high-power chargers.
- **Energy storage capacity in the county presents opportunities for resilient charging hubs:** Inyo County hosts 61 MW of battery storage, including one of the largest installations in the state near Little Lake. With an average installation size far exceeding the statewide average and available land, the county is well positioned to explore resilient charging solutions, such as battery-supported fast charging or microgrid-enabled facilities in remote communities.

Together, these findings highlight the need for a charging network that is:

- **Corridor-focused**, with high-power chargers spaced to support long-distance travel.
- **Community-centered**, expanding Level 2 access in residential areas, especially near multifamily housing.
- **Equitable**, with targeted investments in low-income and remote communities.
- **Resilient**, leveraging the county's growing energy storage assets.

These insights form the foundation of the recommended strategies and priority charging locations developed in this Plan.

3 COMMUNITY AND STAKEHOLDER ENGAGEMENT

Community engagement was fundamental to the development of the Inyo County EVCINP to ensure site recommendations aligned with the needs and preferences of county residents, visitors, and partner agencies. The engagement program was developed to guide the strategies and messaging used to engage with diverse populations across the county and record their feedback. The following section provides an overview of the engagement approach, targeted audiences, and how the feedback shaped the final plan.

3.1 ENGAGEMENT PLAN AND APPROACH

A full version of the Community Engagement Plan is available in **Appendix B**. The engagement process was broken down into two phases throughout the plan development:

1. **Phase One** focused on introducing the broader public and stakeholders to the planning process and gathering feedback on existing and desired charging infrastructure in Inyo County.
2. **Phase Two** focused on sharing proposed recommendations and solutions for the needs and challenges identified in phase one and refining improvements based on public feedback.

3.2 STAKEHOLDER ENGAGEMENT

At the initiation of the project, stakeholders were contacted and invited to attend regular meetings at project key milestones of the plan development. The stakeholder group included representatives from organizations who either had an interest in EV infrastructure or could be impacted by future changes to the EV charging network in Inyo County:

- Caltrans District 9
- City of Bishop
- Inyo County planning and public works staff
- Inyo County Local Transportation Commission
- Mono County Local Transportation Commission
- Business organizations such as chambers of commerce and tourist centers
- Community organizations such as High Sierra Energy Foundation and Inyo Mono Advocates for Community Action
- Eastern Sierra Council of Governments
- Eastern Sierra Transit Authority
- Ecological and land management agencies such as the Bureau of Land Management, Inyo National Forest, Death Valley National Park, and California Department of Fish and Wildlife
- Fire protection districts
- Healthcare providers
- Law enforcement agencies

- Private companies in the Electric Vehicle Industry
- School districts within Inyo County
- Tribes within Inyo County
- Utility providers such as the Los Angeles Department of Water and Power and Southern California Edison (SCE)

The stakeholder group met three times in total. The first meeting took place on January 30, 2025, during the completion of the existing conditions report to share findings and gather additional insights on current EV infrastructure and challenges. The second meeting took place on September 10, 2025, and focused on sharing and discussing priority areas for EV charging infrastructure. The third and final meeting took place on November 13, 2025, to share proposed site recommendations for EV charging and seek feedback on the draft plan.

3.3 COMMUNITY ENGAGEMENT

The project team planned and facilitated both digital and in-person activities for community members to share their feedback on the plan. The following activities and strategies were used to reach and engage with the public:

- **Online Mapping Tool**: An interactive map of Inyo County was available throughout the planning process where participants could identify specific locations that charging infrastructure is needed.
- **Community Workshops**: The project team planned and facilitated two community workshops, one at the beginning of the project and one at the end to share recommendations.
  - **Workshop #1**: February 11, 2025, held virtually through Zoom webinar
  - **Workshop #2**: September 24, 2025, held at the Inyo County Consolidated Office Building in Bishop with an option for participants to join via Zoom

FIGURE 11: AGENDA FROM COMMUNITY WORKSHOP #2

Additionally, the project team developed an informational fact sheet available on the County's website. A screenshot of the online mapping tool hosted on Social Pinpoint is shown in **Figure 12** below.

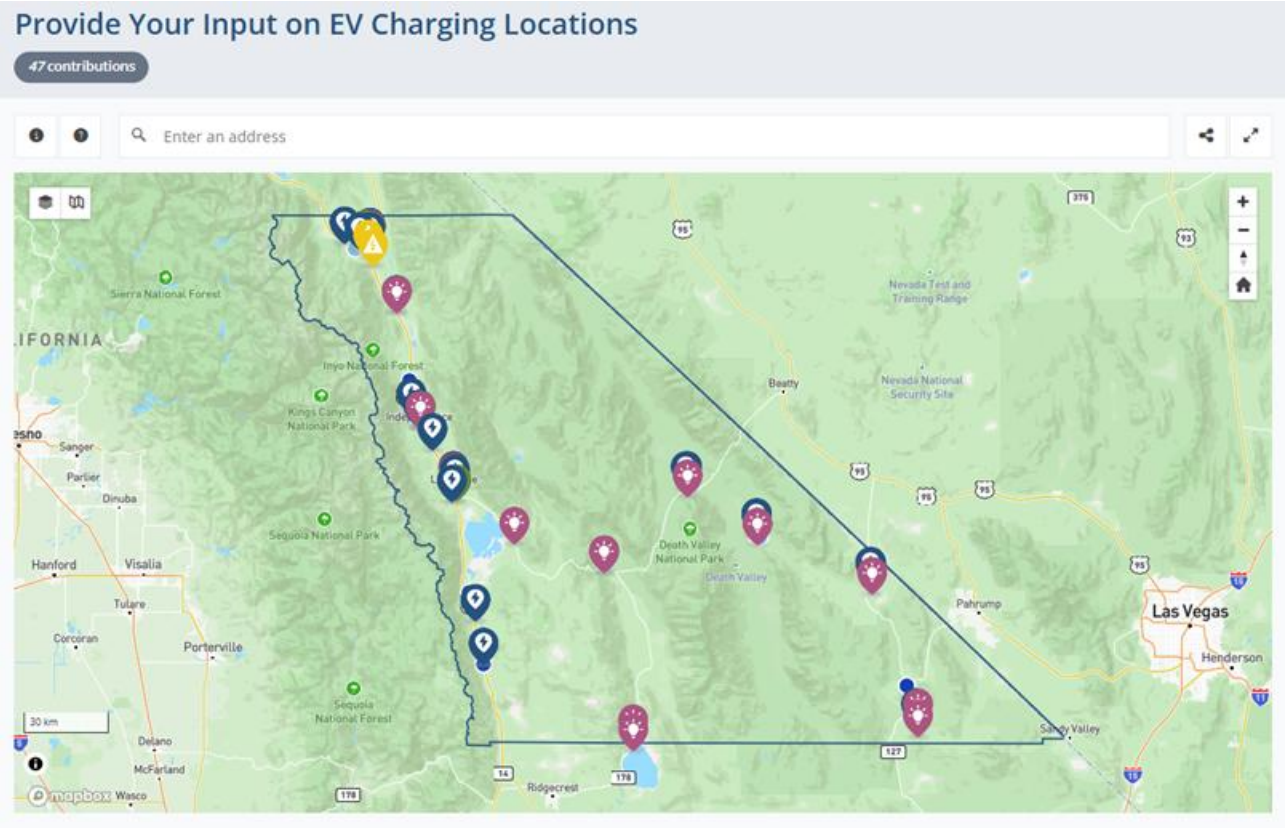


FIGURE 12: ONLINE MAPPING TOOL USED FOR IDENTIFYING DESIRED CHARGING SITES

Overview of Feedback

Public input collected through the online mapping tool and other engagement provided valuable insight into where community members see the greatest need for expanded EV charging infrastructure in Inyo County. Comments highlighted priority locations, identified existing gaps and challenges in the current charging network, and reflected broader considerations for travel patterns, tourism, and future EV adoption.

Online comments fell into the following categories:

- Safety Concern: 3 comments
- Add Level 2 Charging: 6 comments
- Add Level 3 Charging (DCFC): 24 comments
- Project Suggestion: 15 comments

3.4 RECOMMENDED CHARGING LOCATIONS

Respondents shared consistent locations across Inyo County for recommended infrastructure.

3.4.1 HIGHWAY CORRIDORS AND REGIONAL TRAVEL ROUTES

Many comments on the online mapping tool showed a desire for reliable fast charging along major travel routes such as US-395, especially near Lone Pine, Independence, and Big Pine. Other areas include major travel stops between long-distance destinations (Los Angeles, Las Vegas, Mammoth, etc.) at Death Valley Junction, Tecopa, Haiwee, Trona, and Coso Junction.

3.4.2 TOURIST AND RECREATIONAL AREAS

Death Valley National Park is a major tourist attraction that would benefit from more fast charging sites for visitors. Areas highlighted through the online mapping tool include Stovepipe Wells, Shoshone, Furnace Creek, and Death Valley Junction.

3.4.3 DAILY USE LOCATIONS

Respondents expressed interest in more charging options of all types that support everyday activities for locals such as near shopping centers and parks in the City of Bishop.

3.4.4 REMOTE COMMUNITIES

There was consistent support among commenters for adding more charging in isolated and rural areas of the county that have no nearby charging alternatives.

3.5 OTHER KEY COMMENTS AND CONSIDERATIONS

- Many commenters cited a lack of DC fast chargers as a major challenge when traveling along long-distance routes and in heavy tourist areas. Many expressed a desire for chargers suited for non-Tesla EVs, as many charging sites in Inyo County are Tesla-only.
- Other concerns include major gaps between available chargers and limited numbers of options when traveling through remote locations.
- Other considerations for charging sites include adding restrooms, shade, improved lighting for safety, and comfortable spaces for spending time while charging.
- Respondents encouraged more chargers near businesses and shopping centers to boost economic growth and strengthen Inyo County as a regional tourist hub.
- Some comments made suggestions to plan for more EV use over time and infrastructure that can scale with future growth.

4 DEMAND FORECASTS & SITING ANALYSIS

This chapter presents analytical findings on where, how much, and what types of EV charging infrastructure will be needed in Inyo County over time. It combines projections of future EV adoption with statewide charging demand estimates and a locally tailored needs and suitability analysis to evaluate how demand varies across the county's communities and travel corridors. By integrating quantitative modeling with local data, travel patterns, and stakeholder input, this chapter provides a data-driven basis for prioritizing charging investments and ensuring that future infrastructure supports residents, businesses, and visitors across Inyo County's unique rural and corridor-oriented context.

4.1 EV ADOPTION PROJECTIONS

To estimate future total vehicle population and zero-emission vehicle (ZEV) adoption in Inyo County, forecasts were developed using a combination of statewide modeling outputs and local vehicle registration data. The California Air Resources Board's EMission FACtors (EMFAC) model provides policy-consistent projections of vehicle populations and technology adoption by county and year, while Department of Motor Vehicles (DMV) data reflect vehicles registered within Inyo County. Together, these datasets were used to develop reasonable estimates of future vehicle counts and ZEV penetration that reflect both statewide trends and local conditions. This combined approach supports long-term planning by grounding forecasts in observed registration data while remaining consistent with statewide policy assumptions, and it helps address uncertainty associated with forecasting vehicle activity in a rural, corridor-oriented county such as Inyo.

According to the California Department of Motor Vehicles (DMV) and the California Energy Commission (CEC) Inyo County was home to of approximately 18,560 light duty vehicles as of 2020 and approximately 19,550 light duty vehicles as of 2024 (the latest data currently available). The same dataset indicates that as of 2020 there were approximately 80 zero emission vehicles (ZEVs) in Inyo County and as of 2024 there were approximately 310. This represents an increase from approximately 0.4% in 2020 to approximately 1.6% in 2024. The EMFAC model predicts that the total number of light duty vehicles in Inyo County will increase by approximately 1% between 2020 and 2050. Additionally, the model predicts that ZEVs will increase to approximately 82% of total light duty vehicles by 2050. Because the EMFAC data does not match the DMV/CEC data for existing conditions (i.e., 2024) the growth rates and ZEV percentages assumed in the EMFAC model were applied to 2024 data and projected out to EMFAC's end year of 2050. While estimated projections are calculated for each year between 2025 and 2050, data for five-year increments are displayed in **Table 4**. The table shows the gradual increase in zero emission vehicles and decrease in internal combustion vehicles between 2020 and 2050 as ZEVs replace ICEs in the public fleet.

TABLE 4: INYO COUNTY LIGHT DUTY VEHICLE PROJECTIONS

YEAR	TOTAL LIGHT DUTY VEHICLES	ZERO EMISSION VEHICLES (BEV + PHEV)		INTERNAL COMBUSION VEHICLES (GASOLINE + DIESEL)	
		VEHICLES	PERCENT OF TOTAL	VEHICLES	PERCENT OF TOTAL
2020	18,560	80	0.4%	18,480	99.6%
2025	19,550	480	2.5%	19,070	97.5%
2030	19,430	2,660	13.7%	16,770	86.3%
2035	19,310	6,300	32.6%	13,010	67.4%
2040	19,200	10,240	53.3%	8,960	46.7%
2045	19,030	13,290	69.8%	5,740	30.2%
2050	18,790	15,350	81.7%	3,440	18.3%

4.2 EV CHARGING INFRASTRUCTURE DEMAND PROJECTIONS

To inform long-term planning for electric vehicle charging infrastructure, this section summarizes projected charging demand based on statewide modeling and policy guidance developed by the California Energy Commission (CEC). In accordance with Assembly Bill 2127 (AB 2127), the CEC prepares biennial assessments of the charging infrastructure needed to support California's zero-emission vehicle (ZEV) adoption targets. These assessments rely on the Electric Vehicle Infrastructure Projection (EVI-Pro) modeling framework to estimate future demand for public and shared charging across a range of geographic scales, including county-level projections.

The AB 2127 projections provide an important planning benchmark for understanding how EV charging demand in Inyo County may evolve over time as vehicle electrification increases. The data estimate the number and type of chargers needed to support future travel activity under statewide adoption scenarios, including both Level 2 and fast charging infrastructure. While these projections are not intended to prescribe specific sites or account for all local conditions, they offer a consistent, policy-aligned foundation for evaluating potential gaps between existing infrastructure and future needs. In this plan, AB 2127 demand estimates are used alongside local data, travel patterns, and community context to support informed decisions about charging infrastructure investments and to help prioritize strategies that address both resident and traveler charging needs in Inyo County. **Table 5** shows the AB 2127 projections for Inyo County between 2025 and 2035, as forecast by the CEC. The data shows an increase in total charger need in Inyo County from 83 in 2025 to 1,159 by 2035.

When these projections are compared with current conditions, notable differences emerge. As documented in the existing conditions assessment (**Chapter 2**), Inyo County has approximately 101 existing public and shared EV chargers as of early 2024. While this total is generally consistent with the California Energy Commission's estimated baseline of 83 chargers needed in 2025, the composition of existing infrastructure differs from the projected mix. Nearly half of the chargers

currently installed in Inyo County are direct-current fast chargers (DCFC), whereas the AB 2127 projections anticipate a greater proportion of Level 2 charging over time. This contrast reflects the county's current emphasis on corridor- and traveler-oriented charging, as well as the limited availability of destination-based and residential-adjacent charging opportunities. These differences underscore the importance of interpreting statewide demand projections alongside local context and existing infrastructure conditions, and they reinforce the need for a phased, locally responsive approach to future charging deployment.

The data indicates that, while the CEC predicts a much larger need moving forward for public Level 2 charging, implementation to date has focused largely on larger DCFC sites (primarily Tesla Superchargers) along key corridors in the County.

TABLE 5: CHARGING INFRASTRUCTURE DEMAND PROJECTIONS (AB 2127 REPORT)

FORECAST YEAR	MULTI-FAMILY HOUSING LEVEL 1/2	WORK & PUBLIC LEVEL 2	PUBLIC DCFC FOR INTRAREGIONAL TRAVEL	PUBLIC DCFC FOR INTERREGIONAL TRAVEL	TOTAL CHARGERS	GROWTH PER 5 YEARS
2025	4	55	10	14	**83**	+41
2030	54	393	40	23	**510**	+427
2035	114	886	127	32	**1,159**	+649
TOTAL 2025 TO 2035 GROWTH						
GROWTH	+110	+831	+117	+18	+1,076	

4.3 NEEDS AND SUITABILITY ANALYSIS

4.3.1 CHARGING USE CASES

The analysis differentiates between six charging use cases, each with unique evaluation criteria and weighting. These factors represent a wide range of scenarios in which EV drivers may want to or need to charge, spanning from home and work (private-access) to public locations, and covering both Level 2 (and sometimes Level 1) and DC fast charging.

- **Level 2 Charging**
  - **Public Destination Charging:** Charging at public destinations (shopping centers, parks, trailheads, airports, etc.), serving shoppers, visitors, and day-trippers.
  - **Public Neighborhood Charging:** Charging in residential or street-side public right-of-way locations, serving residents without home charging.
  - **Private Multi-Family Charging (Level 2 or Level 1):** Charging at multi-family buildings, not publicly accessible, serving apartment and condominium residents.
  - **Private Workplace Charging:** Employer-provided charging, not publicly accessible, serving commuting employees during work hours.

- **DC Fast Charging**
  - **Public Community Fast Charging:** Fast charging in community hubs (downtowns, transit stations), serving local drivers, rideshare/taxi drivers, and fleets.
  - **Public Corridor Fast Charging:** Fast charging along highways and major travel corridors, serving long-distance travelers and road trippers.

These use cases are summarized in **Table 6** below. **Figure 13** shows typical charger installations for each of the six use cases.

TABLE 6: CHARGING USE CASES IN SITING ANALYSIS METHODOLOGY

USE CASE	CHARGING LEVEL	DESCRIPTION	TYPICAL USERS
1. PUBLIC DESTINATION CHARGING	Level 2	Charging at public locations like shopping centers, parks, trailheads, airports	Shoppers Visitors Day-trippers
2. PUBLIC NEIGHBORHOOD CHARGING	Level 2	Charging in public residential or street-side locations (including right-of-way)	Residents without home charging
3. PRIVATE MULTI-FAMILY CHARGING	Level 2 (or Level 1)	Charging at multi-family buildings, not accessible to the general public	Apartment/condo residents
4. PRIVATE WORKPLACE CHARGING	Level 2	Charging provided by employers, not accessible to the general public	Commuters
5. PUBLIC COMMUNITY FAST CHARGING	DC Fast Charging	Fast charging in community hubs such as downtown or near transit	Local drivers Uber/Lyft/taxi drivers Fleets
6. PUBLIC CORRIDOR FAST CHARGING	DC Fast Charging	Fast charging along highways and major travel corridors for long-distance EVs	Long-distance travelers Road trippers

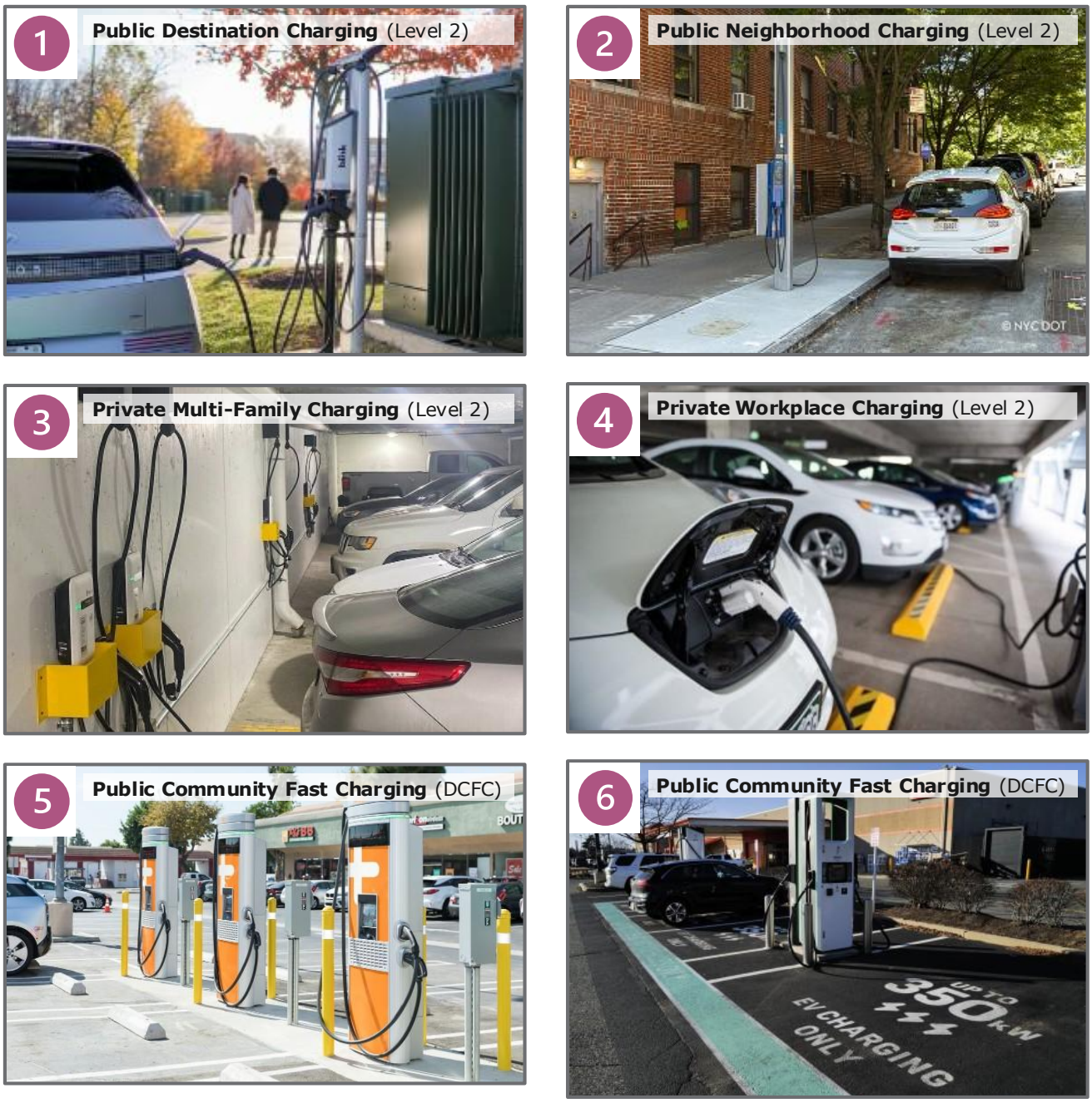


FIGURE 13: TYPICAL CHARGER INSTALLATIONS BY USE CASE

4.3.2 METHODOLOGY

4.3.2.1 Overview

All census tracts in Inyo County are evaluated using a multi-criteria scoring system reflecting charging demand and site suitability. Each use case addresses distinct mobility patterns and user needs, requiring tailored evaluation criteria and geographic prioritization. Criterion scores are

aggregated with weights that vary by use case, with this process recognizing that factors for workplace charging differ from those for destination, neighborhood, or corridor charging.

The tracts with the highest scores reflect regions, communities, and corridors with the highest need for charger investment. Key steps in this needs and suitability analysis include:

- Compile census tract data (demographics, travel patterns, grid capacity, land use, existing EV charging infrastructure).
- Develop suitability scores using weighted criteria.
- Map needs and suitability results (identify high and low demand tracts by use case).
- Incorporate qualitative input from the project's existing conditions assessment, stakeholder workshops, and public engagement.

A summary of the process is provided in **Figure 14**.

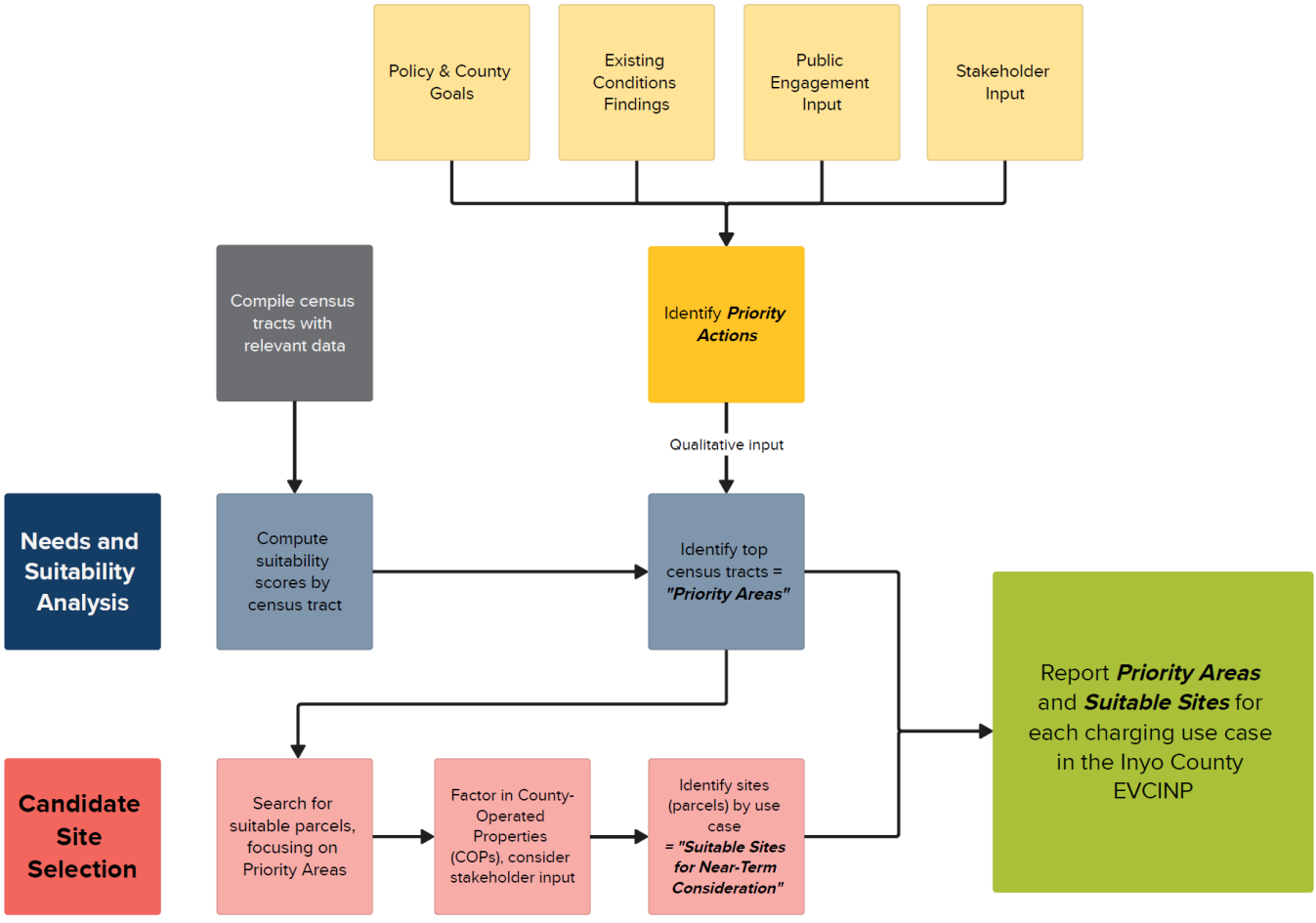


FIGURE 14: SITE CRITERIA PROCESS

4.3.2.2 Geographic Breakdown

Inyo County is comprised of six U.S. census tracts, as shown in **Table 7**. The needs and suitability analysis determines charging needs for each of these areas. Given the County's population distribution, four of the six tracts are concentrated in and around the City of Bishop. Of the main

remaining communities, Big Pine and Independence are located in one census tract, and Lone Pine (along with a vast unincorporated area in southeast County which includes Death Valley) is in another.

TABLE 7: INYO COUNTY CENSUS TRACTS

TRACT NUMBER	AREA NAME	AREA DESCRIPTION
000100	Bishop (North/East)	Unincorporated areas north, east, and southeast of Bishop, including Dixon Lane-Meadow Creek, Laws, and Poleta
000200	Northwest County	Unincorporated areas west of West Bishop
000300	Bishop (West)	Areas near West Bishop, south of U.S. 395
000400	Bishop (Central)	Similar to Bishop's city limits
000500	Big Pine/Independence	Big Pine, Independence, and all communities in between along U.S. 395
000800	Lone Pine/Death Valley	Lone Pine, Olancha, Furnace Creek, Tecopa, and associated communities along U.S. 395, SR-190, SR-127, and SR-178 and in Death Valley

4.3.2.3 Scoring Metrics and Weights

To inform the charger siting analysis, the project team drew from publicly-available datasets covering charging infrastructure, travel behavior, demographics, and equity considerations. A high-level summary of data sources used is included below:

- **Charging infrastructure:** Public Level 2 and DC fast charging access data were obtained from the U.S. Department of Energy's Alternative Fuels Data Center (AFDC).
- **EV adoption:** Local EV registration shares came from the California Energy Commission (CEC) at the ZIP code level, later assigned to census tracts.
- **Travel demand & trip patterns:** Trip volumes, commute shares, long-distance activity, dwell times, and related mobility measures were sourced from Replica.
- **Demographics & workforce:** Employment, housing characteristics, renter shares, and population baselines were compiled from the U.S. Census Bureau's American Community Survey (ACS) and LEHD OnTheMap.
- **Equity & environmental burden:** Priority population designations came from the California Climate Investments (CCI) mapping tool, while environmental burden scores were taken from CalEnviroScreen.
- **Transit & land use:** Transit stops were located based on Caltrans GTFS feeds; land ownership data from CAL FIRE/USGS.

Details on the specific data metrics compiled for this analysis along with associated sources are listed in **Table 26** in **Appendix C**.

The analysis leverages a broad set of potential variables from sources including census demographics, transportation patterns, existing infrastructure, environmental justice indicators, land use, economic data, and EV adoption metrics. Highly correlated variables were removed to avoid redundancy and skewed results. Additionally, both the general public (at Community Workshop #2) and the select group of project stakeholders (Stakeholder Meeting #2) had the chance to weigh in on proposed scoring metric and weighting. The refined variable set was reviewed for relevance, consistency, and completeness to ensure coverage of key factors for each charging use case.

Figure 15 below documents the applied weights for each of the 21 scoring metrics across seven categories. Each of Inyo County's six U.S. census tracts (in the following referred to as areas) were scored based on their respective characteristics across these scoring metrics. To support interpretation of results and improve comparability, the resulting scores were rescaled to range from 0 to 100.[13]

[13] This means that there is exactly one area scoring highest (100) and one areas scoring lowest (0) for each charging use case, indicating the countywide highest-demand and lowest-demand zones for each particular charging use case.

Category	Criteria	Weight					
		Public destination charging	Public neighbor-hood charging	Private multi-family charging	Private workplace charging	Public community fast charging	Public corridor fast charging
Existing EV charger availability	Existing public Level 2 charging access	Medium	Medium	Low			
	Existing public DCFC access					Low	Low
	Local Level 2 charging infrastructure adequacy	Low	Low	Low			
	Local DCFC infrastructure adequacy					Low	
	Corridor DCFC infrastructure adequacy						Low
Existing EV activity	Local EV adoption	Medium	Medium	Medium	Low	Medium	Low
	BEV trip activity	Low				Low	Medium
Social & environ-mental justice	CA Climate Investments Priority Populations	Medium	Medium	Medium	Medium	Medium	Low
	CalEnviroScreen	Medium	Medium	Medium	Medium	Medium	Low
Travel patterns	Long commute activity at home locations		Medium	Medium			
	Long commute activity at work locations				High	Low	
	Commute trip activity		Low	Low	High		
	Work-based trip activity					Low	
	Long-distance trip activity	Low				Low	High
	TNC/taxi activity					Medium	
Between-trip dwell durations	Share of long dwell times at work				Medium	Very low	
	Share of short dwell times					High	High
Multi-unit residents and renters	Multi-unit dwelling prevalence		High	High		Medium	
	Renters prevalence		High	Low		Medium	
Other	Transit access		Very low	Very low	Very low		
	Public land ownership	High	Medium			High	High

FIGURE 15: CRITERIA WEIGHTING BY USE CASE

Purple fields: Criteria indicating a lower suitability for EV Chargers. **Green Fields:** Criteria indicating a higher suitability for EV Chargers.

4.3.3 NEEDS AND SUITABILITY AREA RESULTS

Figure 16 through **Figure 21** display the relative need and suitability of Inyo County's different areas for EV charging by use case, based on the scoring methodology described in the previous section. The results demonstrate clear demand differences between different areas and corridors of the county for additional EV charging. Population characteristics, travel patterns, existing EV charging infrastructure and adoption rates, as well as employment and commercial indicators help unveil where infrastructure investments to support future EV uptake are most needed and sensible. By stratifying the needs and suitability assessment into different use cases, which each reflect unique applications and situations in which EV drivers will need to charge their vehicles, the analysis is able to inform fairly specific conclusions and implementation recommendations for the County, other local jurisdictions, private-sector investment, as well as state and even federal funding programs. Developers proposing charging stations serving the identified use cases in areas indicating a high need and suitability (reddish areas in the maps below) should be given priority in permitting, site design, construction, and commissioning. Suitable roles and recommended actions for different actors to enable this are provided in **Chapter 6** (Implementation Plan).

4.3.3.1 Public Destination Charging (Level 2)

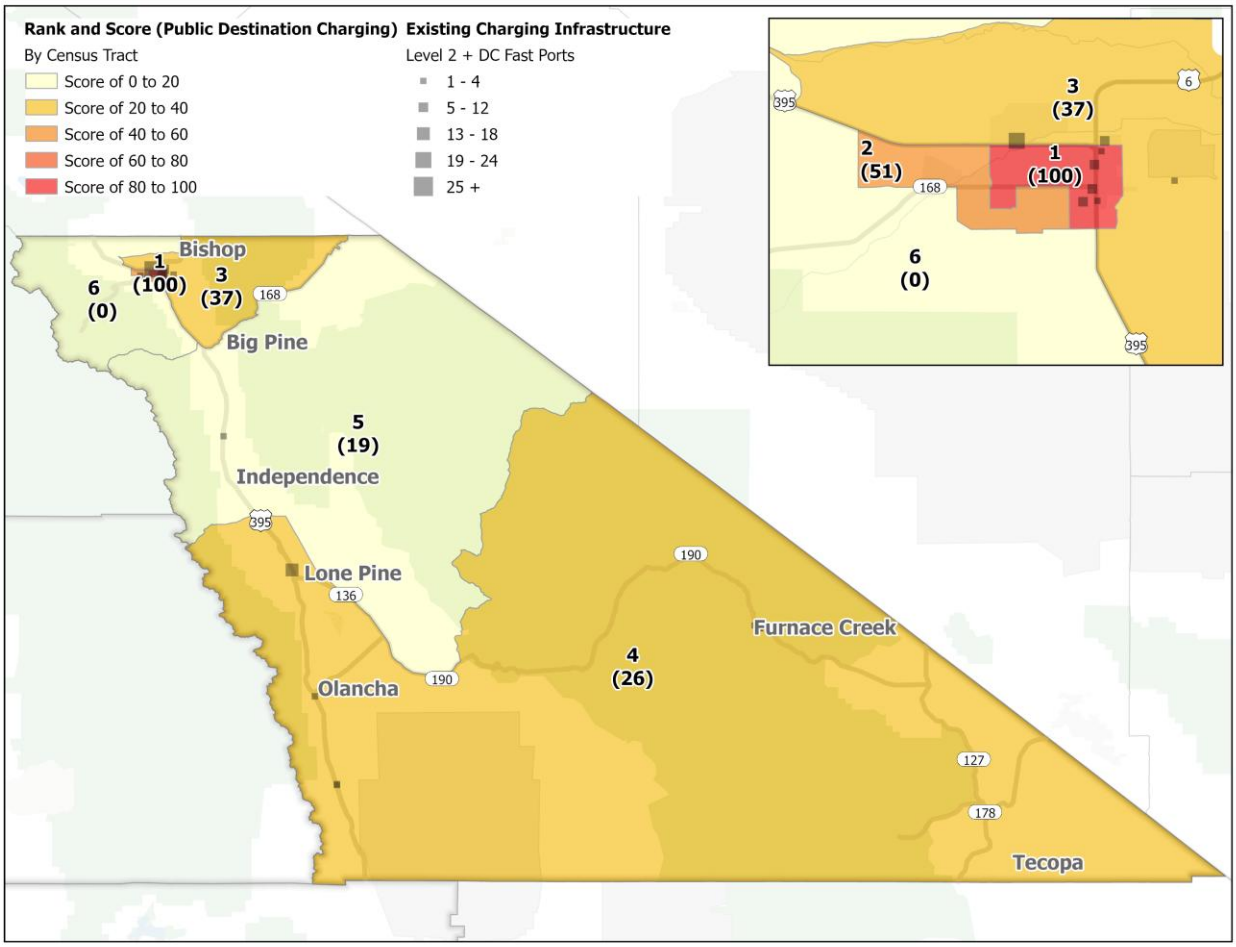


FIGURE 16: PUBLIC DESTINATION CHARGING (LEVEL 2) AREA NEEDS RESULTS

Results for this charging use case indicate:

- **Bishop is the highest-scoring area** for public destination Level 2 charging, including the highest-scoring tract in the county. Adjacent Bishop tracts score moderately to high, reinforcing Bishop as the county's primary demand area for public Level 2 charging.
- Communities in southern Inyo County, specifically including **Lone Pine, Furnace Creek, Olancha, and Tecopa show a moderate need** for public Level 2 charging infrastructure. These areas are mostly characterized by site-specific needs rather than broad deployment.
- Primarily driven by their location along the county's major long-distance travel corridor U.S. 395, **Big Pine and Independence show relatively low scores**. Most EV charging demand in these communities and along this corridor in general is best met with high-powered DC fast chargers for rapid-turnaround.
- Overall, scores are **concentrated around population and activity centers**, especially Bishop.
- The US-395 corridor matters, but corridor towns generally score lower than the main hub, suggesting pass-through DCFC demand outweighs destination demand for Level 2 charging.

4.3.3.2 Public Neighborhood Charging (Level 2)

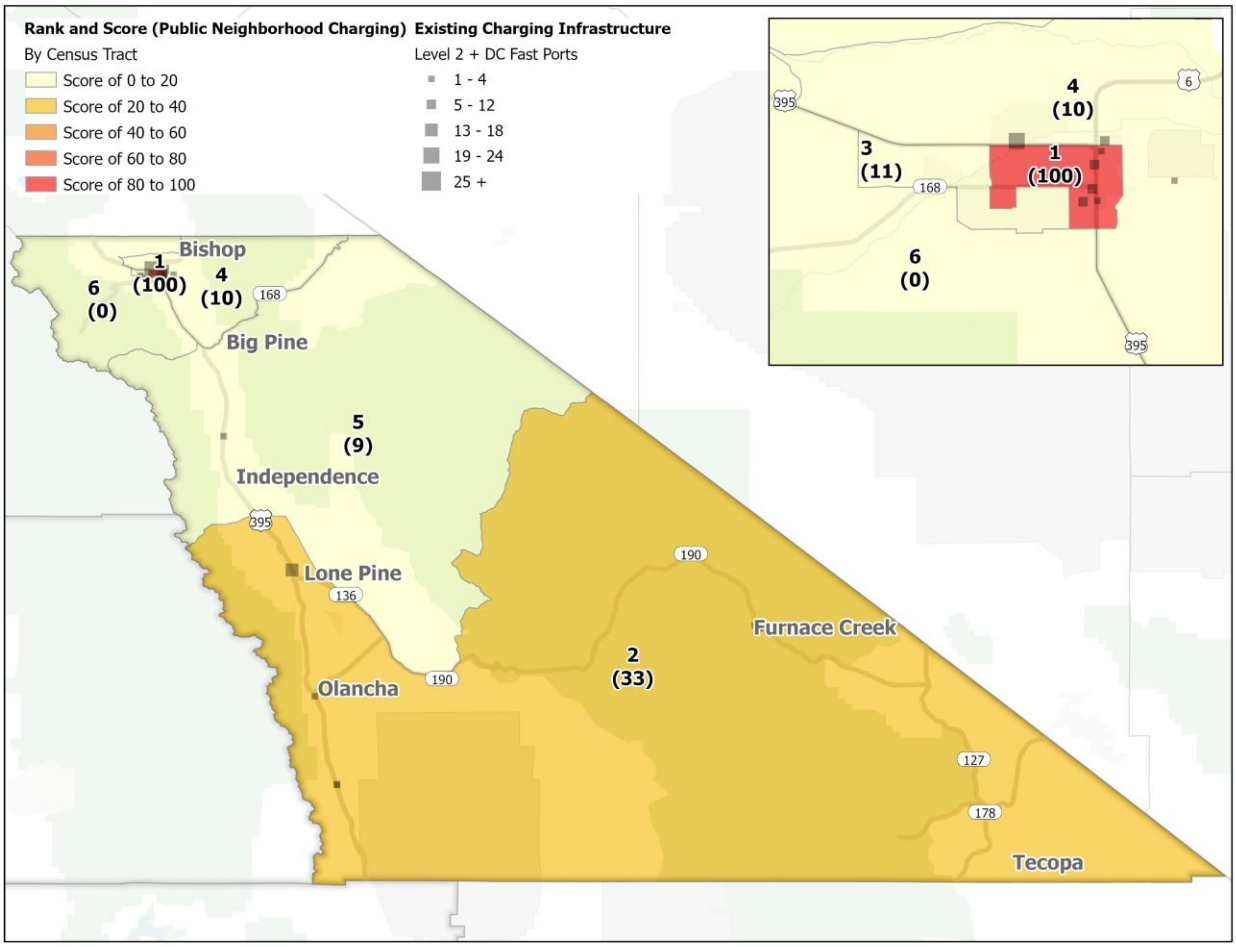


FIGURE 17: PUBLIC NEIGHBORHOOD CHARGING (LEVEL 2) AREA NEEDS RESULTS

Results for this charging use case indicate:

- **Central Bishop** is the highest-scoring area for public neighborhood Level 2 charging. This reflects the concentration of residents, a higher housing density relative to other communities in the county, and the presence of renters that may not have reliable access to private home charging. Public neighborhood charging in Bishop can therefore serve residents living in multifamily housing, mobile home parks, and rental units without dedicated off-street parking.
- **Lone Pine and the surrounding southeast portion of the county** show the second-highest suitability scores for neighborhood charging. These communities include a mix of residential development and rental housing where access to private charging may be limited. In these areas, public neighborhood chargers could provide convenient overnight or extended-dwell charging for residents and local workers.
- Big Pine, Independence, and areas surrounding Bishop score relatively low for this use case. These areas are dominated by single-family homes with higher likelihood of private driveway or garage access, reducing reliance on publicly accessible residential charging.

4.3.3.3 Private Multi-Family Charging (Level 1/2)

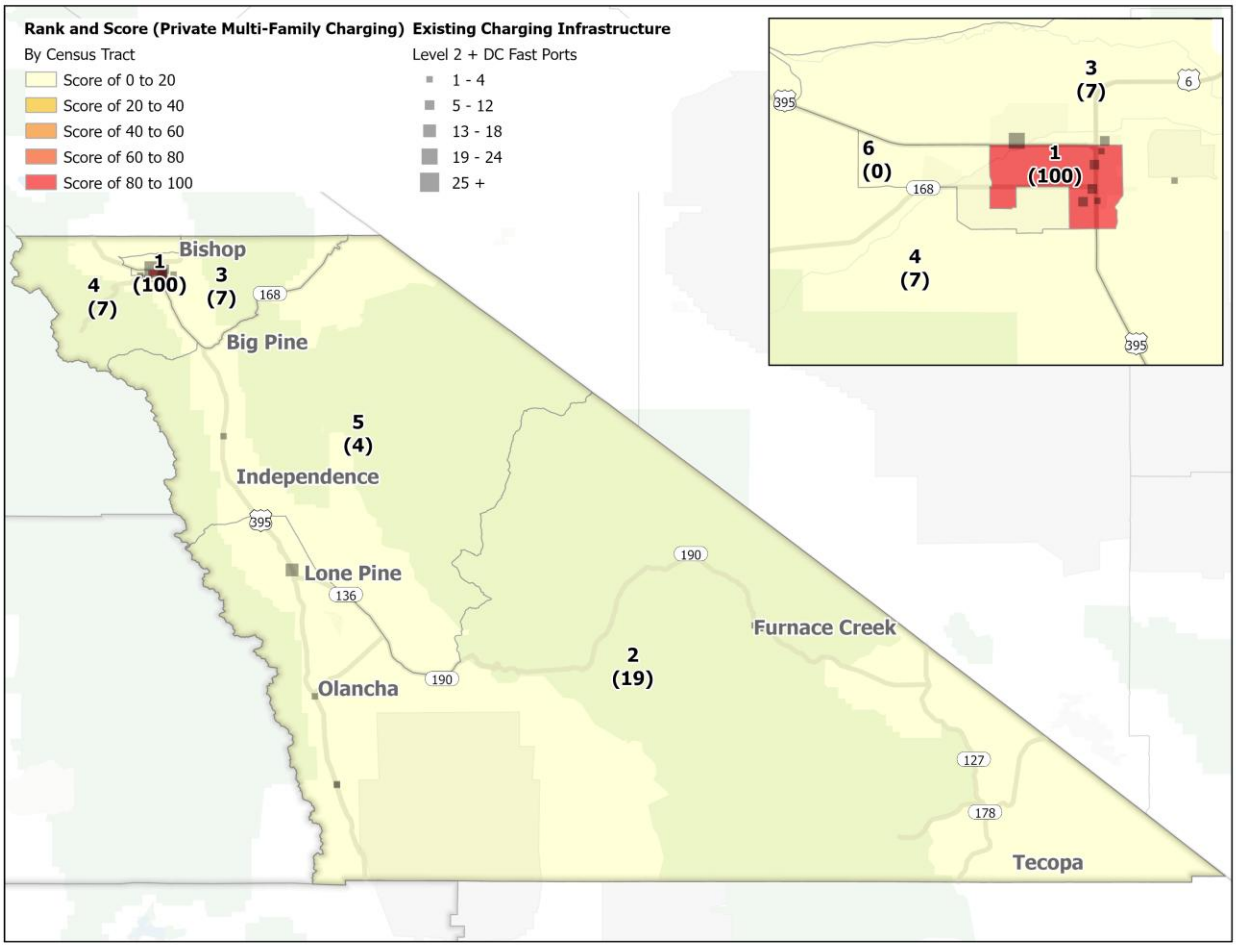


FIGURE 18: PRIVATE MULTI-FAMILY CHARGING (LEVEL 1/2) AREA NEEDS RESULTS

Results for this charging use case indicate:

- **Central Bishop** ranks highest by far for private multi-family charging, reflecting the concentration of apartment buildings, condos, mobile home parks, and other residential developments with at least moderate density. These housing types often lack dedicated charging infrastructure, making them priority locations for Level 1 or Level 2 charging installations serving residents.
- **Lone Pine and the surrounding southeastern communities** represent the second-highest scoring area for this use case. While the overall housing stock is smaller, these communities contain small clusters of rental housing where residents may not have access to private charging, creating a need for charging installations within multifamily properties.
- **Other areas have a low need** for private multifamily charging given they are characterized by single-family housing and lower proportions of multi-unit developments.
- Overall, similarly to public neighborhood charging, the analysis indicates that the greatest need for multifamily charging infrastructure is concentrated in communities with higher renter shares and denser residential development, particularly in Bishop and parts of southern Inyo County.

4.3.3.4 Private Workplace Charging (Level 2)

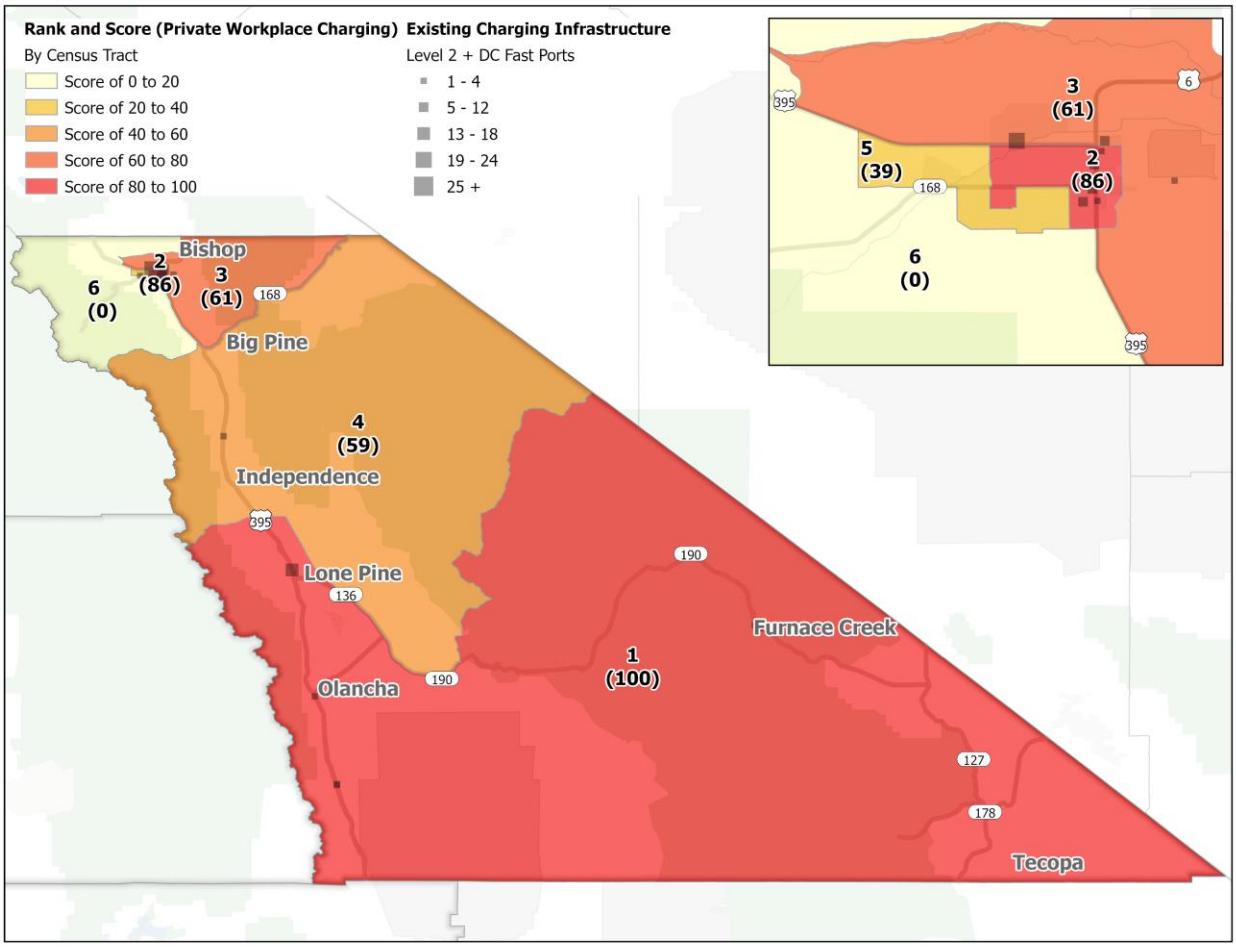


FIGURE 19: PRIVATE WORKPLACE CHARGING (LEVEL 2) AREA NEEDS RESULTS

Results for this charging use case indicate:

- **Lone Pine and the Death Valley / southeastern portion of the county** show a clear demand for private workplace charging. This reflects the concentration of key employers and institutional facilities in this area, including tourism-related businesses, schools, healthcare facilities, and government offices that generate regular commuting travel. Workplace charging at these sites can support employees who travel longer distances to work and may not have reliable charging access at home.
- **Central Bishop ranks second** for workplace charging suitability. As the county's largest employment center, Bishop hosts public-sector offices, healthcare providers, retail establishments, and service-sector employers. These employment concentrations create strong potential demand for employer-provided Level 2 charging that allows employees to charge vehicles during the workday.
- **North/East Bishop** also shows relatively strong suitability for workplace charging compared with other areas. This area includes the Bishop airport as an important employer, some light commercial activity (in Laws), and potentially other institutional uses.

- **Big Pine and Independence** show moderate suitability for workplace charging. While these communities contain some important employers (including schools, tribal offices, and County government facilities) the overall employment density is lower than in Bishop and Lone Pine, resulting in lower overall demand.
- Overall, the results indicate that workplace charging demand is concentrated in communities with the highest employment activity and daily commuting flows, particularly Bishop and Lone Pine, where workers spend extended periods parked at job sites and can conveniently charge vehicles during the workday.

4.3.3.5 Public Community Fast Charging (DCFC)

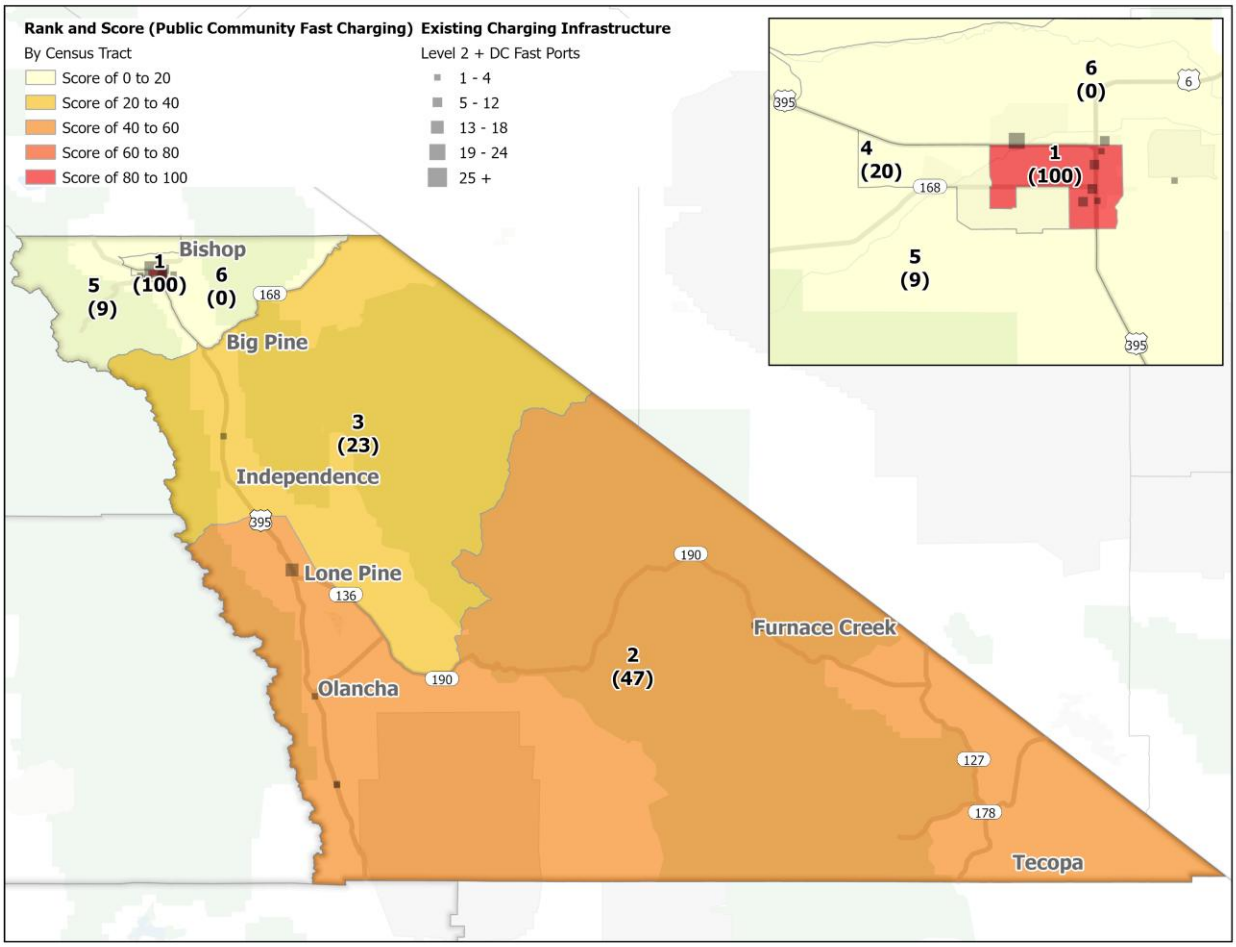


FIGURE 20: PUBLIC COMMUNITY FAST CHARGING (DCFC) AREA NEEDS RESULTS

Results for this charging use case indicate:

- **Central Bishop** ranks as the highest-demand area for public community DC fast charging. As the county's primary population, employment, and service center, Bishop generates the greatest daily travel activity and EV demand from residents, workers, and visitors. Community fast chargers located in Bishop could primarily support local residents without home charging and intercity trips along US-395.
- **Lone Pine and the Death Valley gateway area** show the second-highest suitability for community DC fast charging. These communities serve as important activity centers and major recreational destinations, including Death Valley National Park and Mt. Whitney.
- The **Big Pine-Independence area** also scores relatively well for this use case. These communities provide services and amenities along US-395 and are well positioned to support both local charging needs and shorter-duration charging stops for visitors from out-of-town.
- Other areas (around Bishop) have small population bases and lack concentrations of activity centers where community-oriented fast charging would be most utilized.

4.3.3.6 Public Corridor Fast Charging (DCFC)

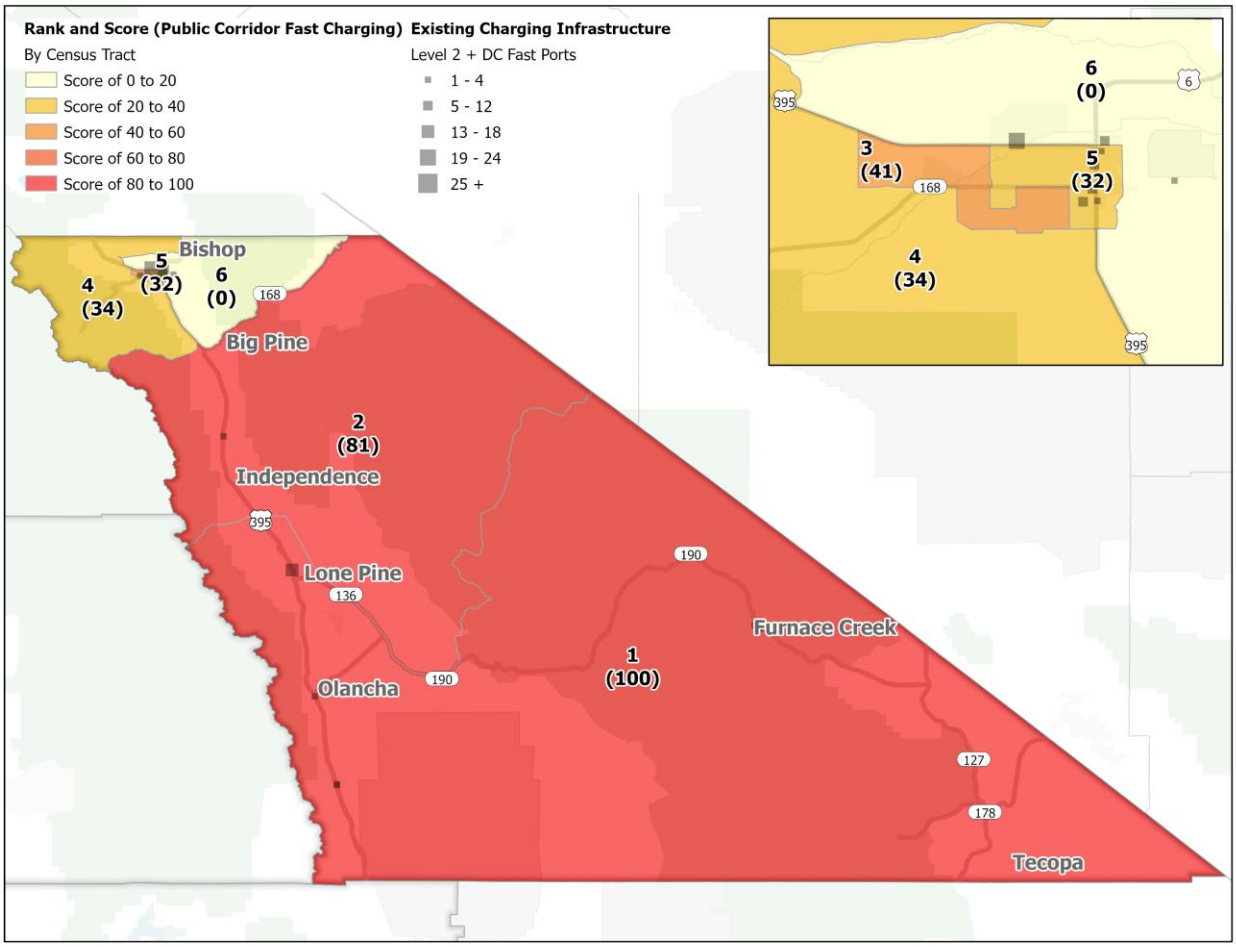


FIGURE 21: PUBLIC CORRIDOR FAST CHARGING (DCFC) AREA NEEDS RESULTS

Results for this charging use case indicate:

- The **entire US-395 and SR-190 corridors**, including communities along these key transportation corridors (Bishop, Big Pine, Independence, Lone Pine, Olancha, Furnace Creek) are highly suitable for corridor DC fast charging. These highways serve long-distance travel between southern California, the Eastern Sierra, Death Valley National Park, and southern Nevada (Las Vegas). Corridor fast chargers in these locations are particularly important for enabling long-distance EV travel and supporting tourism activity.
- **Areas west of Bishop** shows moderate suitability for corridor charging, benefiting from proximity to Bishop's commercial services and the regional highway network. However, corridor charging demand is somewhat lower than in southern communities where longer interregional travel segments occur.
- Overall, the results confirm that corridor fast charging demand is closely tied to long-distance travel routes, particularly US-395, with the highest suitability occurring in communities that serve as strategic stopping points for regional and interregional travel.

4.3.4 TAKEAWAYS

Table 8 summarizes all needs and suitability scores by area presented on the maps above. The three highest-ranking are highlighted in bold.

TABLE 8: SUMMARY OF NEEDS AND SUITABILITY RESULTS

AREA	PUBLIC DESTI-NATION CHARGING		PUBLIC NEIGHBOR-HOOD CHARGING		PRIVATE MULTI-FAMILY CHARGING		PRIVATE WORKPLACE CHARGING		PUBLIC COMMUNITY CHARGING		PUBLIC CORRIDOR CHARGING	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
BISHOP (CENTRAL)	**1**	**100**	**1**	**100**	**1**	**100**	**2**	**86**	**1**	**100**	5	32
BISHOP (WEST)	**2**	**51**	**3**	**11**	6	0	5	39	4	20	**3**	**41**
BISHOP (NORTH/EAST)	**3**	**37**	4	10	**3**	**7**	**3**	**61**	6	0	6	0
NORTHWEST COUNTY	6	0	6	0	4	7	6	0	5	9	4	34
BIG PINE/ INDEPENDENCE	5	19	5	9	5	4	4	59	**3**	**23**	**2**	**81**
LONE PINE/ DEATH VALLEY	4	26	**2**	**33**	**2**	**19**	**1**	**100**	**2**	**47**	**1**	**100**

Note: Top 3 ranking areas for each charging use case highlighted in bold.

Key takeaways from the comprehensive needs and suitability analysis for EV charging infrastructure in Inyo County include:

- **Bishop as key demand area:** The primary need for EV charging is concentrated in and around the City of Bishop, the county's largest populated place. Commercial activity and population concentration, coupled with the presence of many of the county's major employers (local and state government, medical, retail) drive demand for additional EV charging stations here more than in any other area of the county. Specifically, the analysis uncovered a need for expansion of public (destination) Level 2 chargers, private multi-family Level 2 chargers, chargers at workplaces, and DC fast chargers for the use of the local community (residents of Bishop and nearby communities).
    - **Secondary Bishop areas show more targeted and uneven needs:** West Bishop and North/East Bishop demonstrate moderate to lower suitability depending on charging type. West Bishop shows some potential for destination and corridor charging, while North/East Bishop performs more strongly for workplace charging but lower for neighborhood and community charging. These results suggest a need for targeted, site-specific investments rather than broad deployment outside the city core.
- **The Big Pine-Independence area is best suited for corridor and community fast charging:** While suitability for public destination and neighborhood Level 2 charging is relatively low in this area, Big Pine–Independence ranks highly for public corridor charging, reflecting its

location along US-395 and its role in serving both residents and long-distance travelers. DC fast charging is likely to be the most effective charging solution here, supporting daily travel needs, interregional trips, and tourism-related traffic.

- **Lone Pine and the Death Valley / Southeast County area show distinct and mixed charging needs:** This region scores highest for public corridor charging and workplace charging, underscoring the importance of DC fast charging along US-395 and other key routes serving Death Valley National Park and (seasonal) tourist travel. At the same time, moderate scores for public neighborhood, multifamily, and community charging indicate localized residential needs in certain communities. Charging strategies in this area should therefore balance visitor-oriented corridor charging with targeted community-focused installations.
- **Northwest County shows consistently lower suitability across charging types:** The northwest portion of the county ranks low for most use cases, reflecting the area's low population density, limited employment, and moderate travel demand. Of all use cases, additional corridor charging (DCFCs along U.S. 395) may be the most warranted infrastructure type. New charging investments in this area are likely to be opportunistic rather than strategic, also given the proximity to Bishop with major services for long-distance travelers.

4.4 CHARGER NEEDS BY AREA

The needs and suitability analysis was complemented by the quantitative modeling of EV charging demand conducted in the CEC's biannual AB 2127 statewide assessment. The annual projections from that assessment, as presented in **Section 4.2**, estimate the number of charging ports required to support projected EV adoption and travel demand in Inyo County by each respective year. In total, approximately 1,160 charging ports are needed countywide across all AB 2127 charging categories by 2035, see **Table 5** further above.

Table 9 Table 9 below shows how the countywide needs from the AB 2127 report are translated to charger needs for each of the charging use case defined in this plan. Of the charger needs listed under the AB 2127 report's "Work & Public L2" category, 75% are assumed to be required at public locations, and 25% are assumed to be needed at workplaces with restricted (non-public) parking. This split is informed by Inyo County's relatively small number of large employers or employers with designated, private-access parking for its workforce.

TABLE 9: CHARGER DEMAND PROJECTIONS BY USE CASE

CHARGING USE CASE	CHARGING LEVEL	RELATIONSHIP TO AB 2127 CHARGING CATEGORIES	CHARGERS NEEDED IN INYO COUNTY BY 2035
PUBLIC DESTINATION CHARGING	Level 2	75% of "Work & Public L2" projected chargers (see Table D-5 in 2024 AB 2127 report)	75% of 886 = **~670**
PUBLIC NEIGHBORHOOD CHARGING	Level 2	*After review of MUDs and nearby street parking, no area was identified as suitable for this charging use case*	**0**
PRIVATE MULTI-FAMILY CHARGING	Level 2	100% of "MFH" projected chargers (see Table D-4 in 2024 AB 2127 report)	100% of 114 = **~110**

CHARGING USE CASE	CHARGING LEVEL	RELATIONSHIP TO AB 2127 CHARGING CATEGORIES	CHARGERS NEEDED IN INYO COUNTY BY 2035
PRIVATE WORKPLACE CHARGING	Level 2	25% of "Work & Public L2" projected chargers (see Table D-5 in 2024 AB 2127 report)	25% of 886 = **~220**
PUBLIC COMMUNITY FAST CHARGING	DCFC	100% of DCFCs needed for routine intraregional travel (see Table D-6 in 2024 AB 2127 report)	100% of 127 = **~130**
PUBLIC CORRIDOR FAST CHARGING	DCFC	Statewide DCFCs needed for interregional travel (7,685, per Table 9 of 2024 AB 2127 report), scaled down to Inyo County by using the County's share of statewide long-distance (100+ mi) trips per Replica (about 0.41%).	0.41% of 7,685 = **~30**
TOTAL			**~1,160**

These needs are not evenly distributed across the county. Instead, they reflect the geographic patterns of population, employment, travel behavior, tourism activity, and roadway connectivity identified in the needs and suitability analysis discussed in **Section 4.3**. Therefore, census tract-level scores from that analysis are used to determine area-specific numbers of chargers needed by use case. The results are shown in **Table 10**, with each use case's projected number of required chargers grouped into ranges. The totals by use case in the bottom row correspond to the countywide projections by use case in **Table 9** above.

Overall, the analysis shows that Inyo County is projected to require approximately 1,160 EV chargers by 2035. By sheer quantity of required ports, public destination charging forms the backbone of the system, reflecting the importance of longer dwell-time locations in a rural context such as commercial areas, parks, and lodging. However, access to fast charging is critical to support EV adoption and use in a vast geography like Inyo County. While these needs are more limited in total quantity, they are essential for system functionality. Community DC fast chargers are focused in population centers to support local flexibility and reliability, while corridor fast chargers enable regional travel and tourism connectivity.

Geographically, demand is highly centralized, with Bishop as the dominant hub for charging demand, accounting for the majority of projected need across all use cases. Lone Pine/Death Valley serves as a secondary node with a more balanced mix of charging types, while other areas require relatively small numbers of chargers primarily to ensure basic access.

TABLE 10: CHARGER NEEDS BY AREA IN 2035

TRACT	PUBLIC DESTINATION CHARGERS (LEVEL 2)	PRIVATE MULTI-FAMILY CHARGERS (LEVEL 2)	PRIVATE WORKPLACE CHARGERS (LEVEL 2)	PUBLIC COMMUNITY FAST CHARGERS (DCFC)	PUBLIC CORRIDOR FAST CHARGERS (DCFC)	TOTAL
000100 BISHOP (NORTH/EAST)	21-40	< 5	11-20	< 5	< 5	**41-60**
000200 NORTHWEST COUNTY	< 5	< 5	< 5	< 5	< 5	**< 5**
000300 BISHOP (WEST)	21-40	< 5	< 5	< 5	< 5	**21-40**
000400 BISHOP (CENTRAL)	501-600	101-150	101-150	101-150	< 5	**801-900**
000500 BIG PINE/ INDEPENDENCE	11-20	< 5	11-20	< 5	5-10	**21-40**
000800 LONE PINE/DEATH VALLEY	21-40	< 5	41-60	11-20	21-40	**101-150**
TOTAL	**~670**	**~110**	**~220**	**~130**	**~30**	**~1,160**

Key observations and takeaways include:

- **All charging use cases are needed** to support a complete and functional EV network, even though demand varies by type.
- **Public Level 2 destination charging represents the largest share of need** (by number of required charging ports), forming the foundation of the system.
- **Workplace and multi-family charging** play important supporting roles, particularly in denser and employment-focused areas.
- **DC fast charging is essential despite lower port counts**, enabling both local flexibility (community charging) and regional mobility (corridor charging).
- **Demand is highly concentrated in key hubs (especially Bishop)**, but **every area requires some level of infrastructure** to ensure access and coverage.
- **Lower-demand use cases and locations remain critical**, as they fill gaps in the network and support reliability, equity, and long-distance travel.

4.5 EXAMPLE SITES FOR NEW EV CHARGING DEPLOYMENTS

4.5.1 POTENTIAL SITES

While this Plan does not prescribe a specific list of locations where EV charging stations should be located, the Project Team has identified a number of example locations where EV charging stations could prove to be useful and feasible based on the use cases and site selection criteria described in **Section 4.3**. Approximately 40 potential locations have been identified based on the use cases described in **Section 4.3.1** above. While many of the locations would specifically serve one of these use cases, some of the locations could serve two or more of the use cases. The potential locations list is intended to serve all geographic areas of the County.

Table 11 shows the 40 locations identified for potential charging sites and includes the city or community, use cases, and recommended charge levels for each potential location. The table shows:

- **Distribution by geography:** Despite the population, employment, and land use density of Bishop, over half of the locations are outside Bishop, with multiple locations in Lone Pine (6), Independence (5), Death Valley (5), Big Pine (4), and Olancha (1).
- **Distribution by charging use case:** The list includes 12 locations for public destination charging, 9 locations for public corridor fast charging, 8 locations for public community fast charging, 9 locations for private workplace charging, and 7 locations for private multi-family charging, with 6 locations identified for more than one charging use case.

Figure 22 shows the geographic locations and distribution of the 40 potential locations described above. Each point on the map is colored by the use case or combination of use cases identified for the individual sites.

Each location is illustrated and described in more detail in **Appendix D** at the end of this plan. Each of the site information sheets in that appendix includes a table with key site properties, name, address, the applicable charging use case(s), relevant site features, and potential charger installations, as well as an aerial image of the site and a regional map highlighting its location relative to adjacent communities and roadways.

TABLE 11: EXAMPLE POTENTIAL CHARGING LOCATIONS

LOCATION NAME	CITY OR TOWN	USE CASE(S)	RECOMMENDED CHARGE LEVEL(S)
MILLPOND COUNTY PARK	Bishop	Public Destination Charging	Level 2
BISHOP AIRPORT	Bishop	Public Destination Charging Public Community Fast Charging	Level 2 DCFC
PARKING LOT NEAR BISHOP CITY HALL	Bishop	Public Destination Charging	Level 2
SURFACE PARKING LOTS IN BISHOP	Bishop	Public Destination Charging	Level 2

LOCATION NAME	CITY OR TOWN	USE CASE(S)	RECOMMENDED CHARGE LEVEL(S)
BISHOP UNION HIGH SCHOOL	Bishop	Public Destination Charging	Level 2
BIG PINE HIGH & ELEMENTARY SCHOOLS	Big Pine	Public Destination Charging	Level 2
INYO COUNTY ADMINISTRATIVE COMPLEX	Independence	Public Destination Charging Public Community Fast Charging	Level 2 DCFC
OWENS VALLEY HIGH SCHOOL	Independence	Public Destination Charging	Level 2
SOUTHERN INYO HOSPITAL	Lone Pine	Public Destination Charging Private Workplace Charging	Level 2
STREET PARKING IN DOWNTOWN LONE PINE	Lone Pine	Public Destination Charging	Level 2
STOVEPIPE WELLS	Death Valley	Public Destination Charging Public Corridor Fast Charging	Level 2 DCFC
FURNACE CREEK	Death Valley	Public Destination Charging Private Workplace Charging	Level 2
MT. WHITNEY APARTMENTS	Lone Pine	Private Multi-Family Charging	Level 1/2
TWO SIXTY TWO ACADEMY	Bishop	Private Multi-Family Charging	Level 1/2
SIERRA APARTMENTS	Bishop	Private Multi-Family Charging	Level 1/2
FOWLER APARTMENTS	Bishop	Private Multi-Family Charging	Level 1/2
SIERRA PINES	Bishop	Private Multi-Family Charging	Level 1/2
WILLOW PLAZA	Bishop	Private Multi-Family Charging	Level 1/2
CENTRAL BISHOP, LONE PINE, INDEPENDENCE	Bishop, Lone Pine, Independence	Private Multi-Family Charging	Level 1/2
NORTHERN INYO HOSPITAL	Bishop	Private Workplace Charging	Level 2
RETAIL AREA BY DIXON LANE-MEADOW CREEK	Bishop	Private Workplace Charging	Level 2
INYO COUNTY CONSOLIDATED OFFICE BUILDING (COB)	Bishop	Private Workplace Charging	Level 2
PARKING LOT AT BISHOP CITY HALL	Bishop	Private Workplace Charging	Level 2
CALTRANS DISTRICT 9 HEADQUARTERS	Bishop	Private Workplace Charging	Level 2
LADWP MAINTENANCE FACILITY	Independence	Private Workplace Charging	Level 2
DEATH VALLEY UNIFIED SCHOOL DISTRICT	Death Valley	Private Workplace Charging	Level 2

LOCATION NAME	CITY OR TOWN	USE CASE(S)	RECOMMENDED CHARGE LEVEL(S)
GROCERY STORES IN BISHOP	Bishop	Public Community Fast Charging	DCFC
HI COUNTRY MARKET	Big Pine	Public Community Fast Charging	DCFC
DEHY PARK	Independence	Public Community Fast Charging	DCFC
LONE PINE MARKET	Lone Pine	Public Community Fast Charging	DCFC
CALIFORNIA HIGHWAY PATROL – BISHOP AREA	Bishop	Public Corridor Fast Charging	DCFC
GAS STATIONS IN BISHOP	Bishop	Public Corridor Fast Charging	DCFC
BIG PINE PAIUTE TRIBAL OFFICE	Big Pine	Public Community Fast Charging	DCFC
GAS STATIONS IN BIG PINE	Big Pine	Public Corridor Fast Charging	DCFC
GAS STATIONS IN INDEPENDENCE	Independence	Public Corridor Fast Charging	DCFC
EASTERN SIERRA VISITOR CENTER	Lone Pine	Public Community Fast Charging	DCFC
GAS STATIONS IN LONE PINE	Lone Pine	Public Corridor Fast Charging	DCFC
OLANCHA/GRANT	Olancha/ US 395 Corridor	Public Corridor Fast Charging	DCFC
FURNACE CREEK VISITOR CENTER	Death Valley	Public Corridor Fast Charging	DCFC
DEATH VALLEY JUNCTION	Death Valley	Public Corridor Fast Charging	DCFC

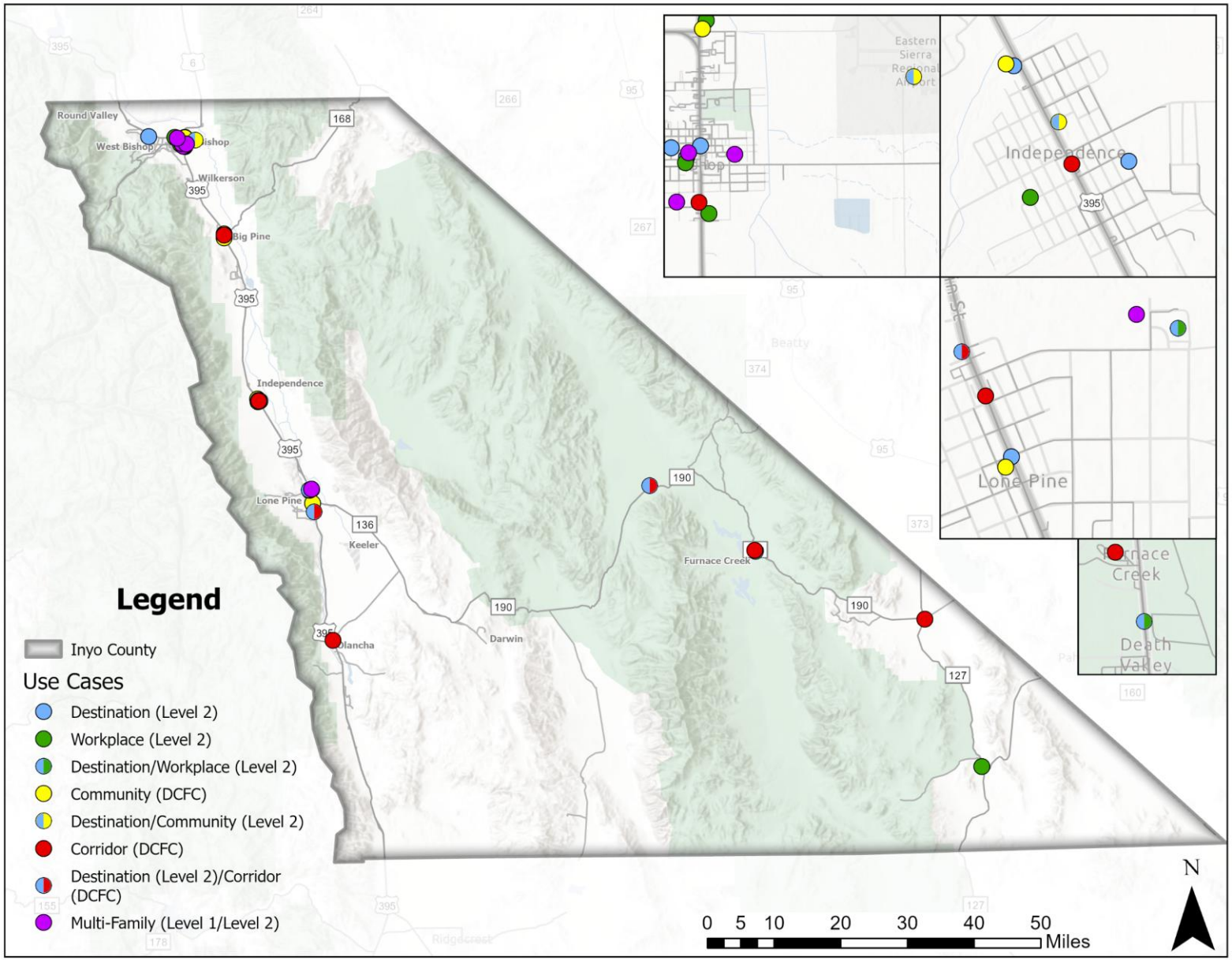


FIGURE 22: POTENTIAL LOCATIONS AND USE CASES

4.5.2 SUITABLE SITES FOR NEAR-TERM CONSIDERATION

The 40 potential locations described above were presented at a Stakeholder Meeting in November 2025 to a group of project stakeholders including local and regional jurisdictions and agencies, advocacy groups, and other interested parties. Slides for each location (included in this Plan as **Appendix D**) were shown and described to the stakeholder group and meeting attendees were able to comment on each location. A subsequent online survey was made available to the stakeholders and they were asked to give their opinion on whether each location should be considered for further consideration. Allowable answers included the following:

- "Yes" (positive)
- "Potentially" (positive)
- "No Opinion" (neutral)
- "No" (negative)

In addition to selecting " no opinion" respondents were allowed to skip a location entirely if desired. A total of 18 responses provided answers to the survey and in addition to answering the specific questions, nearly 200 comments were provided. Responses to the survey questions, as well positive and negative comments received regarding each location were used to narrow down the list from 40 locations to 9 locations to be reviewed for further study.

Sites were ranked by the number of generally positive survey answers ("Yes" plus "Potentially") and sites receiving either 5 "Yes" votes or 10 positive ("Yes" plus "Potentially") votes are included in this discussion for further review and summarized in **Table 12**. The table shows that 9 locations meet the criteria of having either 5 "Yes" responses or 10 combined "Yes" and "Potentially" responses. Of these, 8 include public destination charging, 2 include private workplace charging, 2 include public community fast charging, 1 includes public corridor fast charging, and 0 include private muti-family charging.

While 7 locations were identified for private multi-family charging, respondents tended to respond negatively toward these locations with most receiving 2 or less "Yes" votes and 3 or less "Potentially" votes. Only one general location (multi-family sites in central Bishop, Lone Pine, and Independence) received 4 "Yes" votes and 5 "Potentially" votes, thus indicating that the locations identified for potential private multi-family charging were not popular with the stakeholder survey respondents. **Figure 23** shows the geographic distribution of these potential sites.

In addition to the 9 sites that were identified for further study using stakeholder input, two additional sites were recommended by Inyo County staff for further review. These include Spainhower Park and Diaz Lake, both located near Lone Pine.

Installing EV charging at **Spainhower Park** would support both local residents and travelers passing through Lone Pine along the U.S. 395 corridor. As a centrally located community space, the park attracts families, events, and recreational users who often spend extended periods on-site, making it an ideal location for Level 2 charging. Providing EV infrastructure here would encourage longer dwell times that benefit nearby local businesses, while also improving charging access in a rural area where options are currently limited. Additionally, it aligns with broader regional and state goals to expand equitable access to clean transportation in underserved communities. DC fast chargers at this location could serve both local residents in need of quick recharge and long-distance travelers along U.S. 395.

EV charging at **Diaz Lake** would serve outdoor recreationists, tourists, and campers who frequent this popular destination just south of Lone Pine. The lake is a gateway for activities like fishing, camping, and access to nearby public lands, meaning visitors often stay for several hours or overnight, well-suited for EV charging use. Adding chargers here would enhance the visitor experience by reducing range anxiety in a remote area and supporting sustainable tourism in the Eastern Sierra. It would also strengthen the charging network along U.S. 395, making long-distance EV travel through Inyo County more feasible.

TABLE 12: SUITABLE SITES FOR NEAR-TERM CONSIDERATION

LOCATION	USE CASE(S)	POTENTIAL CHARGER INSTALLATIONS	STAKEHOLDER SURVEY RESPONSES				
			YES	POTENT-IALLY	NO	TOTAL POSITIVE	PERCENT POSITIVE
FURNACE CREEK SR-190, DEATH VALLEY	Public Destination Charging Private Workplace Charging	10-20 Level 2	10	5	0	15	88%
BISHOP AIRPORT 703 AIRPORT RD, BISHOP	Public Destination Charging Public Community Fast Charging	5-10 Level 2 1-2 DCFC	9	3	3	12	67%
INYO CO. ADMIN COMPLEX 168 N EDWARDS ST, INDEPENDENCE	Public Destination Charging Public Community Fast Charging	5-10 Level 2 4-8 DCFC	9	3	1	12	80%
SOUTHERN INYO HOSPITAL 501 E. LOCUST ST, LONE PINE	Public Destination Charging Private Workplace Charging	5-10 Level 2	7	5	1	12	67%
STOVEPIPLE WELLS SR 190, DEATH VALLEY	Public Destination Charging Public Corridor Fast Charging	5-10 Level 2 4-8 DCFC	9	3	1	12	80%
PARKING LOT, BISHOP 199 N WARREN/ 220 N FOWLER, BISHOP	Public Destination Charging	5-10 Level 2	6	1	1	7	64%
INYO COUNTY COB 1360 N MAIN ST, BISHOP	Public Destination Charging	At least 10% of parking stalls	5	1	1	6	67%
CALTRANS DISTRICT 9 HEADQUARTERS 500 S MAIN ST, BISHOP	Private Workplace Charging	At least 10% of parking stalls	5	0	0	5	63%
MILLPOND COUNTY PARK 220 SAWMILL RD, BISHOP	Public Destination Charging	3% to 6% of parking stalls	4	6	2	10	77%
SPAINHOWER PARK 430 N. MAIN STREET, LONE PINE	Public Destination Charging Public Corridor Fast Charging	5-10 Level 2 1-2 DCFC	n/a				
DIAZ LAKE 5007 S. MAIN STREET, LONE PINE	Public Destination Charging Public Corridor Fast Charging	5-10 Level 2 1-2 DCFC	n/a				

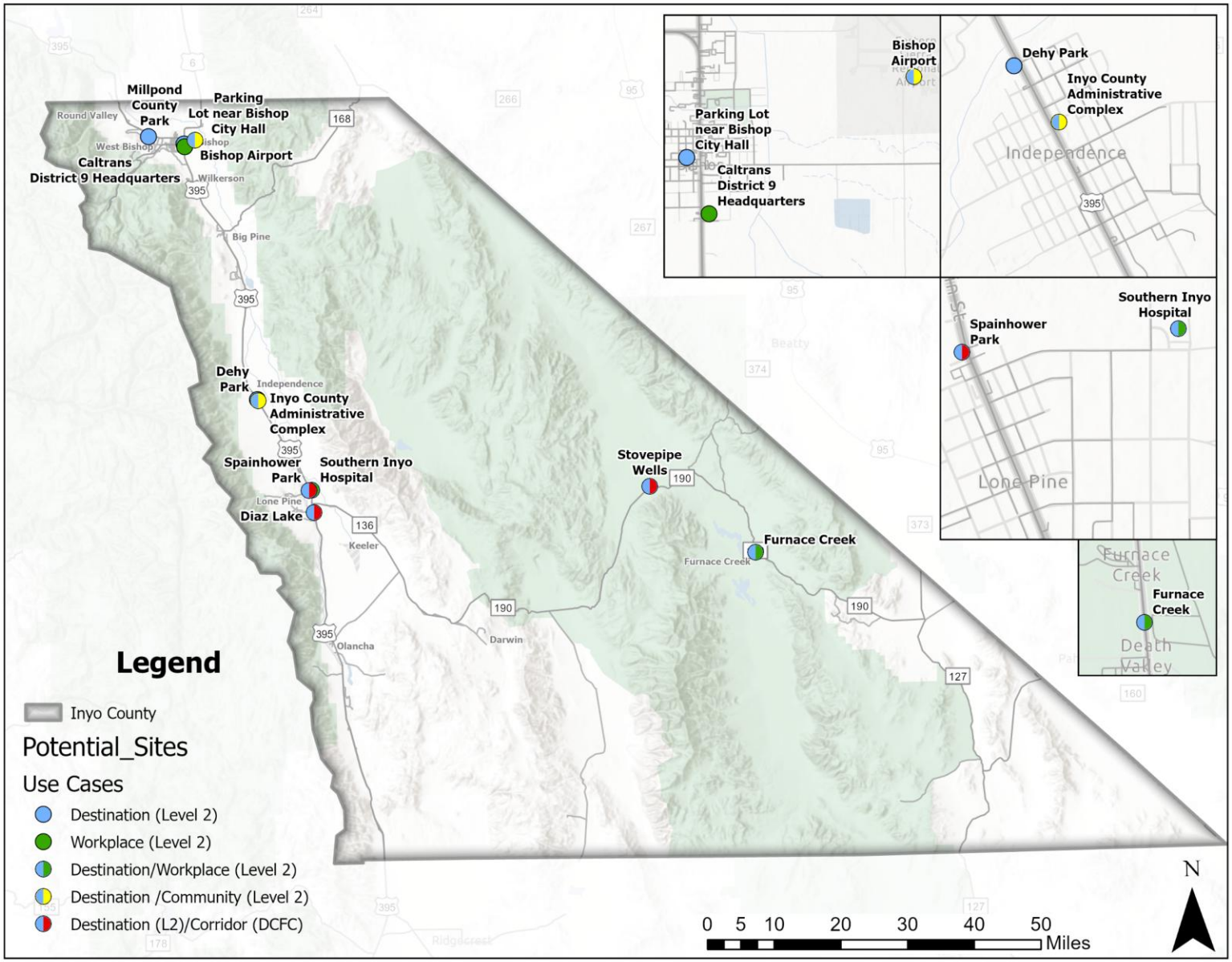


FIGURE 23: SUITABLE SITES FOR NEAR-TERM CONSIDERATION

While only the 9 locations listed above garnered the number of positive replies to the survey based on the thresholds listed above, any of the 40 sites listed in this section could be considered for potential charger siting. In general, stakeholders were less likely to respond positively to sites identified for private charging, which makes sense given the fact that this Plan cannot prescribe where charging is to be installed on private property.

4.5.3 CHARGING FOR MULTI-FAMILY RESIDENTS

While the results of this siting analysis did not result in any multi-family residential locations receiving positive survey results, it remains clear that charging for multi-family residents, as well as residents who rent their homes, is of key importance in electric vehicle adoption and use. Nationally, approximately 80% of EV charging is done at home, and this is typically a barrier for those who do not have access to their own garage, carport or driveway which includes most multi-family residents, as well as those who cannot install their own Level 2 charging solution, which includes many renters, even those who live in single family homes.

While public charging plans such as this one can encourage best practices, they have limited ability to require private multi-family property owners to install EV charging infrastructure. As a result, many renters and multifamily residents continue to face barriers to EV adoption due to a lack of reliable home charging access. Level 2 charging at or near the home remains a critical component of EV ownership, as it supports overnight charging that aligns with typical vehicle dwell times and reduces dependence on public infrastructure. Without this access, households may experience higher charging costs, increased travel time to reach charging locations, and reduced convenience, all of which can disproportionately affect renters and lower-income residents.

Given these constraints, public agencies can play a key role in expanding alternative charging options that help compensate for gaps in private investment. Destination-oriented Level 2 charging at workplaces, commercial centers, and community facilities can serve drivers during extended stays and provide partial substitutes for home charging. Community fast charging offers a reliable and time-efficient option for residents who require regular access to charging near where they live, particularly in areas with high renter concentrations or limited off-street parking. Corridor-based charging along major travel routes supports regional travel, rural connectivity, and tourism, while also serving local residents who lack home-based charging. Together, these complementary charging strategies form a layered network that improves access, reduces range anxiety, and supports broader EV adoption where home charging cannot be guaranteed.

Some of the larger multi-family sites where on-site or nearby (within walking distance) charging would prove beneficial include the following:

- Mt. Whitney Apartments (Lone Pine) – 34 units
- Sierra Apartments (Bishop) – 26 units
- Sierra Pines (Bishop) – 16 Units
- Willow Plaza Apartments (Bishop) – 12 units
- 262 Academy (Bishop) – 26 units
- Fowler Apartments (Bishop) – 20 units

5 COUNTY FLEET TRANSITION AND CHARGING INFRASTRUCTURE RECOMMENDATIONS

This chapter outlines recommendations related to the County's gradual transition to EVs, the recommended strategy for charging County fleet EVs, and the number and types of required fleet charging stations. It also includes detailed installation recommendations and both capital and operating cost estimates.

5.1 OVERVIEW

5.1.1 FLEET COMPOSITION

Inyo County's vehicle fleet consists of 228 assets, including:

- 138 light-duty vehicles (up to 10,000 lbs. gross vehicle weight rating, or GVWR)
- 50 medium-duty vehicles (10,001-26,000 lbs. GVWR)
- 31 heavy-duty vehicles (more than 26,000 lbs. GVWR)
- 9 off-road equipment (non-road legal assets such as construction or landscaping equipment)

Figure 24 below depicts this breakdown, further providing information on the vehicle type composition of each class size. Light-duty SUVs and pickups (up to F-250 size) make up about half of the County's fleet. Of the medium- and heavy-duty assets, a particularly challenging market segment for vehicle electrification given higher energy needs and currently lower EV market availability, most are large pickup truck and other truck configurations, such as utility, dump, or plow trucks. The County's off-road equipment includes multiple loaders, backhoes, and tractors.

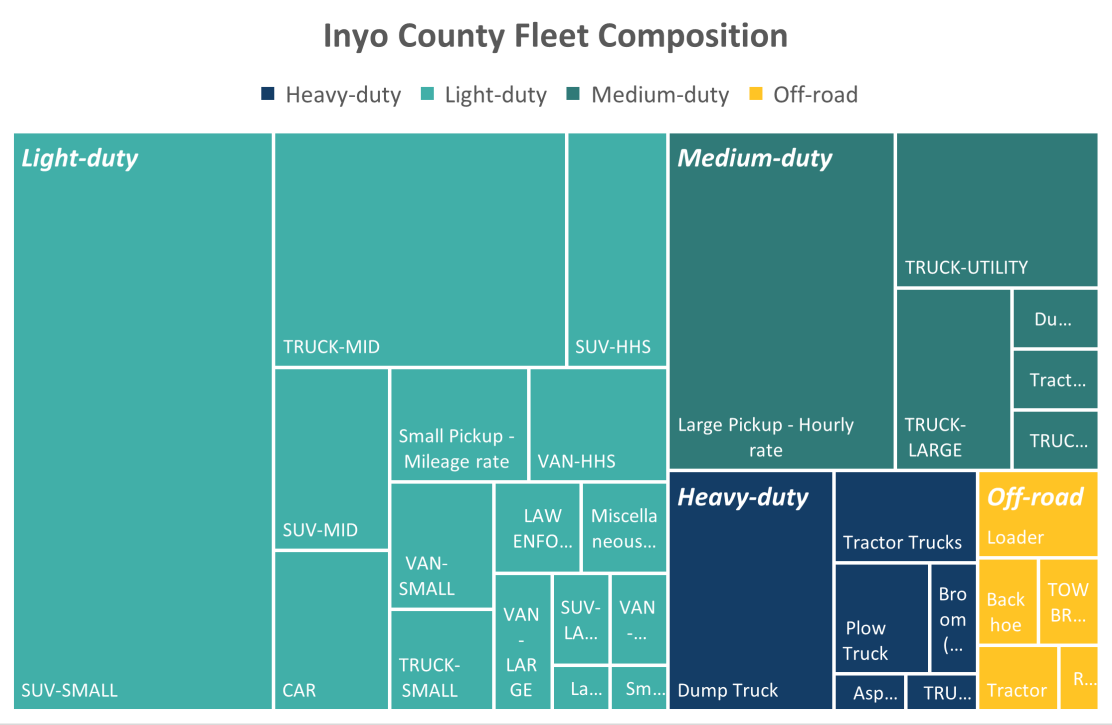


FIGURE 24: INYO COUNTY FLEET COMPOSITION

5.1.2 FACILITIES ASSESSED FOR FLEET CHARGER INSTALLATIONS

Inyo County's fleet is based at 18 distinct locations. The project team evaluated fleet assignments and future charging needs at each of these facilities. In consultation with County staff, the project team studied the following nine fleet facilities in greater detail based on their existing electrical infrastructure to identify suitable ways to install fleet charging infrastructure:

- Consolidated Office Building (COB) – 1360 N Main St, Bishop
- 3rd Street Yard – 468 S 3rd St, Bishop
- Big Pine Road Yard – 150 Dewey St, Big Pine
- Bishop Road Yard – 3236 W Line St, Bishop
- Inyo County Admin/Annex Center – 168 N Edwards St, Independence
- Lone Pine Yard – 162 N Lone Pine Ave, Lone Pine
- Mazourka Road Shop – 750 S Clay St, Independence
- Shoshone Road Yard – 303 S Highway 127, Shoshone
- Wye Road – 218 Wye Rd, Bishop

These sites are included in the interactive online dashboard (described further below) and the comprehensive fleet EV charger installation recommendations (**Section 0**).

5.2 FLEET REPLACEMENT PLAN

The consultant team developed a fleet replacement plan that outlines a financially sustainable pathway for Inyo County's transition to zero-emission vehicles. The plan balances operational requirements, projected funding availability, and compliance with California's Advanced Clean Fleets (ACF) regulation.

If all vehicles beyond their useful life were replaced immediately, a substantial portion of the fleet would need to be replaced, resulting in prohibitively high capital expenditures during the first year of implementation. To mitigate this, the consultant team adjusted the replacement schedule to maintain a maximum annual electric vehicle procurement budget of approximately $2 million.

To achieve this balance, the County should extend the service life of vehicles that remain in suitable operating condition. Decisions to defer replacement should be guided by each vehicle's maintenance history, performance data, safety record, fuel and operating costs. This strategy allows reliable vehicles to remain in service longer without compromising operational performance or regulatory compliance. Conversely, vehicles with high mileage, elevated maintenance costs, or essential operational roles should be prioritized for earlier replacement.

The resulting replacement plan shown in **Figure 25** is structured to ensure compliance with ACF requirements while distributing capital costs evenly over the transition period. Each vehicle's scheduled replacement year reflects an integrated analysis of procurement and operating costs, regulatory milestones, and operational priorities. This phased approach will enable Inyo County to achieve full ACF compliance while maintaining predictable annual expenditures and a controlled pace of fleet modernization.

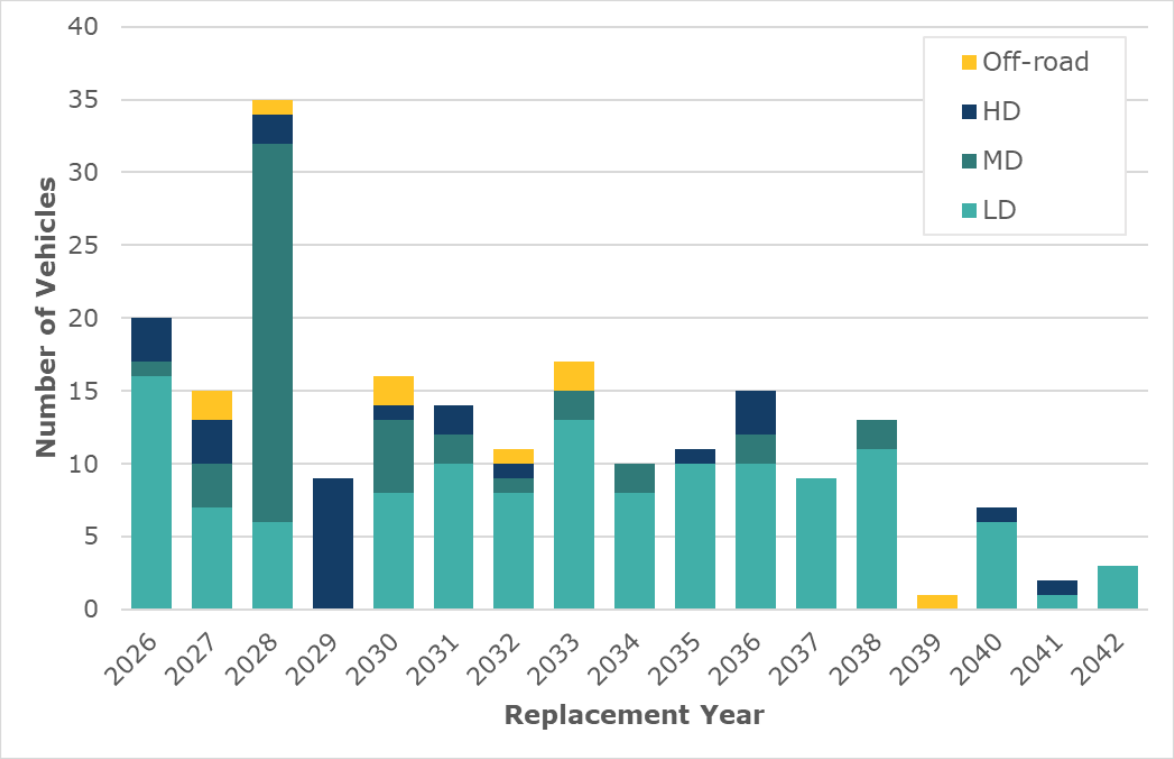


FIGURE 25: FLEET REPLACEMENT SCHEDULE

5.3 INTERACTIVE ONLINE DASHBOARD

The project team provides the County with access to an interactive online dashboard that allows staff to view fleet EV charging recommendations and the replacement plan and make adjustments to the phasing strategy.

The dashboard is available at this link, with log-in credentials provided to select County project staff: https://fleet-eta.dkselectromobility.com/

An excerpt of the tool's primary dashboard is shown in **Figure 26**.

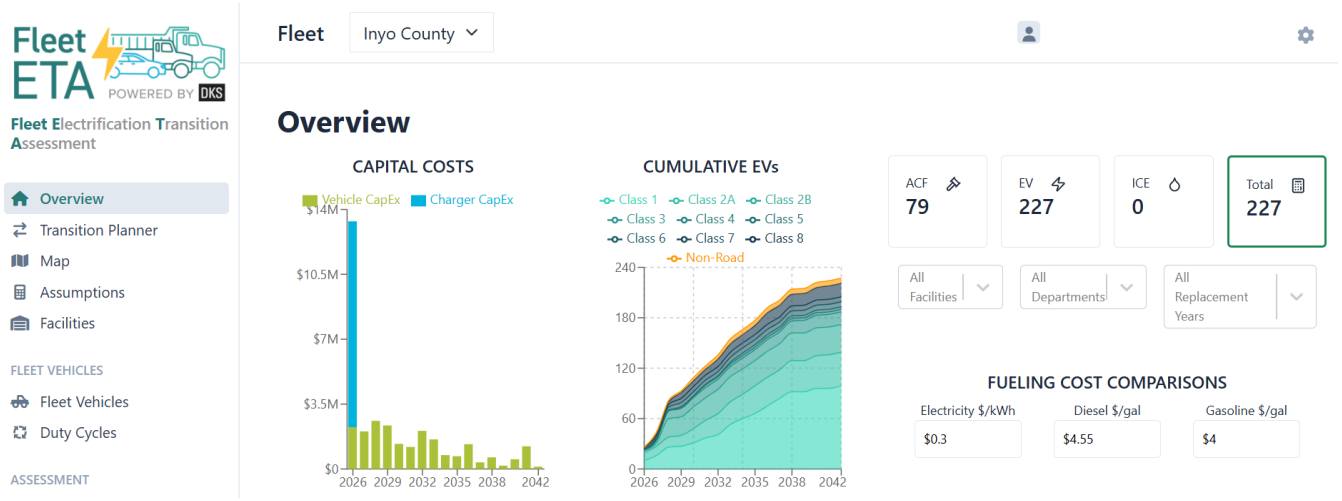


FIGURE 26: INTERACTIVE FLEET TRANSITION ONLINE DASHBOARD

5.4 FLEET EV CHARGING STRATEGY

The project team evaluated alternative strategies to charging fleet EVs, based on Inyo County's fleet operational needs and portfolio of fleet parking locations. These strategies, along with their respective benefits and disadvantages, are discussed in **Appendix E**.

The recommended strategy to charge Inyo County's fleet EVs predominantly relies on the shared use of Level 2 chargers for regular, overnight charging to cover daily energy needs. This should be coupled with and supported by supplemental DC fast charging when and where necessary, as explained further below.

The recommended charging strategy has the following key benefits:

- **Operational Efficiency:** While experiencing high mileage on some days, over the course of the year, the County's fleet vehicles average approximately 30 miles daily, requiring between 1 and 200 kWh per vehicle each day. Most of the more modest energy demands can be effectively managed by charging EVs every few nights or during other available windows, eliminating the necessity for each EV to have a dedicated charger. Other EVs with higher energy demands will need to charge daily and may even require their own dedicated charging port.
- **Cost-Effectiveness:** Implementing any charging strategy at the County's fleet facilities will require significant investments in charging infrastructure at fleet facilities. Shared chargers effectively minimize the capital expenditure necessary to power an all-electric fleet, compared to an approach with dedicated chargers for each fleet EV.
- **Scalability and Future-Proofing:** As the County expands its EV fleet in compliance with state regulation, the recommended strategy allows for scalable infrastructure that can adapt to increasing energy requirements without necessitating overly extensive electrical upgrades at each facility. Based on DKS' extensive fleet electrification planning and design experience,

dedicated chargers are typically 50-250%[14] more expensive to deploy than shared chargers, given the common need for more complex electrical service upgrades.

- **Workplace Charging:** The utilization of shared chargers simplifies the operational workings of charger sharing with employee-owned personal vehicles (i.e. "workplace charging"). If desired, chargers and their associated software could distinguish between fleet EVs and personally-owned EVs in charging sessions, e.g. through the use of RFID cards in each fleet EV and issued to County employees for use with their personal EVs. This way, employees are not bound to specific, dedicated charging stations and parking stalls.

Figure 27 below shows typical charging durations for the Nissan Leaf and Chevy Silverado EV. The charging times refer to charging sessions during which the EV's battery gets replenished from 10% to 90% SOC. Few EVs in Inyo County's fleet will require such a session on a typical day, so Level 2 chargers installed at County facilities should be shared among the fleet.

The figure shows that for some EV models, a limited AC charging power acceptance rate may diminish the incremental value of a charging station with higher power outputs. For example, a Nissan Leaf does not accept an AC charging power greater than 6.6 kW, hence the charging time on a 11.5-kW charger is the same as on a 6.6-kW charger. For Inyo County's fleet, given the typical daily mileage and common EV models' AC acceptance rates, low and medium-output chargers (6.6-11.5 kW provided at each plug) are recommended to meet the charging needs in most cases. Such chargers can replenish a light-duty EV battery from 10% to 90% state-of-charge within 5-12 hours. For heavy-duty vehicles, moderate DC chargers (such as 22.5 kW) are recommended for overnight charging.

[14] The lower end of that range would apply for facilities at which no major electrical system upgrades are needed. The higher end of that range applies when upgrades such as on the transformer, switchboard, or panel level are necessary. Electrical upgrades can be substantially more expensive when attempting to provide a dedicated charger for each fleet EV than when sharing chargers between EVs, as recommended in this plan.

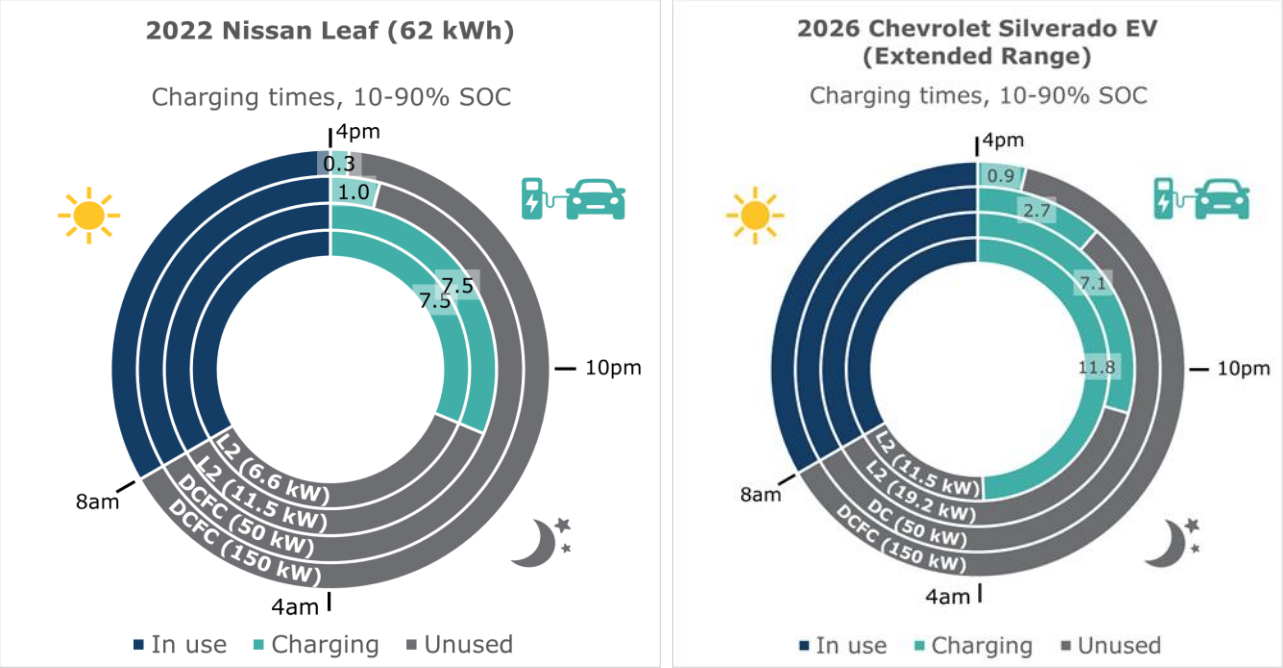


FIGURE 27: EXEMPLARY CHARGING TIMES FOR TYPICAL FLEET EVS ON LEVEL 2 AND DC FAST CHARGING STATIONS OF DIFFERENT POWER OUTPUTS.

As shown in **Table 13** further below, the recommended charger quantities would lead to a total of 95 charging plugs available to charge fleet EVs across Inyo County's fleet. Given the total number of 228 future fleet EVs and pieces of equipment at these facilities, this would imply that, on average, there would be about 2.4 EVs for each charging plug. Operationally, this means that most future fleet EVs could charge approximately every other night using a Level 2 charger. Some of the County's fleet vehicles typically drive relatively few miles per day and could be charged less frequently than daily. Other assets have higher utilization and onboard power needs in addition to traction power; these EVs could be charged every night, if necessary.

Figure 28 below visualizes how a potential charging schedule for four EVs per charging plug would work. Each EV (distinguished by color in the figure) would charge overnight about once a week, with the charger being utilized every night, increasing the return on the capital investment of deploying each charger. For Inyo County, the recommended charging station quantities would ensure that all fleet EVs could charge more frequently than in this example.

Week	Vehicles...	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	...charging (at night)							
	...in operation							
2	...charging (at night)							
	...in operation							
3	...charging (at night)							
	...in operation							
4	...charging (at night)							
	...in operation							
5	...charging (at night)							
	...in operation							

FIGURE 28: POTENTIAL CHARGING SCHEDULE ROTATING DIFFERENT FLEET VEHICLES ON THE SAME CHARGER.

Note: Shown is a scenario where 4 EVs would share one charging plug.

To ensure smooth operations when chargers are shared between multiple fleet EVs, the County should consider implementing a charging management platform. These software systems connect to networked "smart" chargers, allowing operators to control when and how vehicles are charged and prioritize charging based on operational needs. They also provide real-time visibility into charger status, track energy use, and support billing and LCFS credit generation. By automating scheduling and balancing loads, such systems can help fleets reliably operate with fewer chargers than vehicles, while avoiding costly utility demand charges or service upgrades.

In addition to shared Level 2 chargers to cover typical daily charging needs, the project team recommends the installation of DCFC stations as a supplement at some facilities to provide operational convenience, flexibility, and redundancy. These fast chargers could cover charging needs that were unforeseen, unexpected, or only occur occasionally. Such high-speed DCFCs are capable of serving many fleet EVs per day (as opposed to the Level 2 chargers' pattern of one charging session each night). The concept, typical use cases, benefits, and disadvantages of supplemental DC fast chargers are further explained in **Appendix E**.

5.5 FLEET CHARGING INFRASTRUCTURE RECOMMENDATIONS

5.5.1 SUMMARY

As discussed in **Section 5.1.2**, fleet vehicle assignments and future charging needs were assessed for each of the County's 18 fleet domicile locations. Of these, nine sites were identified as priority with 5 or more assigned vehicles. For these nine priority fleet domiciles, the project team developed site assessments with specific EVSE installation recommendations. As detailed in **Section 5.4**, the project team recommends a shared charging strategy (versus dedicated ports) for baseload Level 2 charging operations, along with supplemental DC fast charging capacity at select sites.

In addition to providing EVSE recommendations to recharge County EVs overnight, the project team proposes DC fast chargers (DCFC) at five strategic fleet sites for occasional daytime charging needs (e.g., County vehicles traveling between cities). For the five sites with proposed DCFCs, capital and operating costs are shown with and without the DCFC to illustrate the impact of such a strategy on the fleet electrification plan and the County's budget.

Table 2 summarizes the recommendations made at each location, including number of vehicles, existing energy load capacity, proposed EVSE load once chargers are installed, and estimated CAPEX and OPEX costs. For sites without detailed installation assessments, the table lists the number of vehicles, type and number of recommended chargers, and the resulting EVSE load.

Key takeaways include:

- To power Inyo County's future all-electric fleet of 228 vehicles, a total of 95 charging ports will be necessary, including 68 Level 2 ports, 13 moderate-speed DC ports, and 14 high-speed DC fast charging ports.
- The installation of 77 ports (including all DCFCs) recommended at the nine priority sites is estimated to cost about $6.2 million.
- The total resulting operational expenditure at these nine sites is estimated at about $378,000 per year. These costs account for fuel (electricity), charger maintenance, software/licensing fees, and potential LCFS revenue.

Figure 29 through **Figure 32** show the geographic locations of data presented in the table, including number of fleet vehicles, number of recommended EVSE ports, and estimated load requirements, and capital expense at each recommended site.

Each of the nine site assessments is included in **Appendix F**, each including an overview of existing conditions, fleet vehicles, parking conditions and electrical capacity, and concluding with detailed EVSE recommendations consisting of quantity, type, placement, and the costs associated with their installation and operation. Each site assessment is standardized to enable independent planning by site.

TABLE 13: SUMMARY OF FLEET EV CHARGER RECOMMENDATIONS AT INYO COUNTY SITES

SITE NAME (UTILITY)	FLEET EVS	EXISTING INSTALLED CAPACITY (KW)*	EST. SPARE CAPACITY (KW)	PROPOSED EVSE LOAD WITH DCFC (KW)	PROPOSED EVSE LOAD WITHOUT DCFC (KW)	TYPE & NUMBER OF CHARGING PORTS	CAPEX	ANNUAL OPEX
SITES WITH DETAILED INSTALLATION RECOMMENDATIONS								
Consolidated Office Building (SCE)	64	1441	611-1153	738	138	L2 (12) DCFC (4)	$1,109,870	$33,620
3rd Street Yard (SCE)	25	24	9-17	92	92	L2 (8)	$321,740	$34,320
Big Pine Road Yard (LADWP)	10	48	33-37	369	69	L2 (4) DC (1) DCFC (2)	$783,230	$45,250
Bishop Road Yard (SCE)	19	48	18-31	133	133	L2 (4) DC (4)	$500,540	$56,980
Inyo County Admin/Annex (LADWP)	5	300	150-179	163	13	L2 (2) DCFC (2)	$431,930	$18,370
Lone Pine Yard (LADWP)	22	48	23-26	753	153	L2 (4) DC (5) DCFC (4)	$1,472,260	$104,770
Mazourka Road Shop (LADWP)	19	144	39-98	137	137	L2 (8) DC (2)	$503,050	$52,040
Shoshone Road Yard (SCE)	9	24	11-17	362	62	L2 (4) DC (1) DCFC (2)	$797,910	$16,920
Wye Road AG Facility (SCE)	19	54	9-26	46	46	L2 (4)	$270,720	$16,560
Subtotal	**192**	**2,131**	**903-1,584**	**2,793**	**843**	**77 Ports**	**$6,191,250**	**$378,830**

SITE NAME (UTILITY)	FLEET EVS	EXISTING INSTALLED CAPACITY (KW)*	EST. SPARE CAPACITY (KW)	PROPOSED EVSE LOAD WITH DCFC (KW)	PROPOSED EVSE LOAD WITHOUT DCFC (KW)	TYPE & NUMBER OF CHARGING PORTS	CAPEX	ANNUAL OPEX
SITES WITHOUT DETAILED INSTALLATION RECOMMENDATIONS								
Bishop Airport/ESTA	1			No DCFCs recommended	13	L2 (2)		
Bishop Library	1			No DCFCs recommended	13	L2 (2)		
Bishop Senior Center	2			No DCFCs recommended	13	L2 (2)		
City Hall	2			No DCFCs recommended	23	L2 (2)		
JAIL	3	*Not*		No DCFCs recommended	23	L2 (2)	*Not*	
Lone Pine Senior Center	4	*assessed*		No DCFCs recommended	13	L2 (2)	*assessed*	
Progress House	2			No DCFCs recommended	13	L2 (2)		
Take Home	18			No DCFCs recommended	*n.a.*	*n.a.*		
Tecopa Hot Springs	1			No DCFCs recommended	13	L2 (2)		
Wellness Center	2			No DCFCs recommended	13	L2 (2)		
Subtotal	**36**	**-**	**-**	**-**	**137**	**18 Ports**	**-**	**-**
Total	**228**	**2,131**	**903-1,584**	**2,793**	**980**	**95 Ports**	**$6,191,250**	**$378,830**

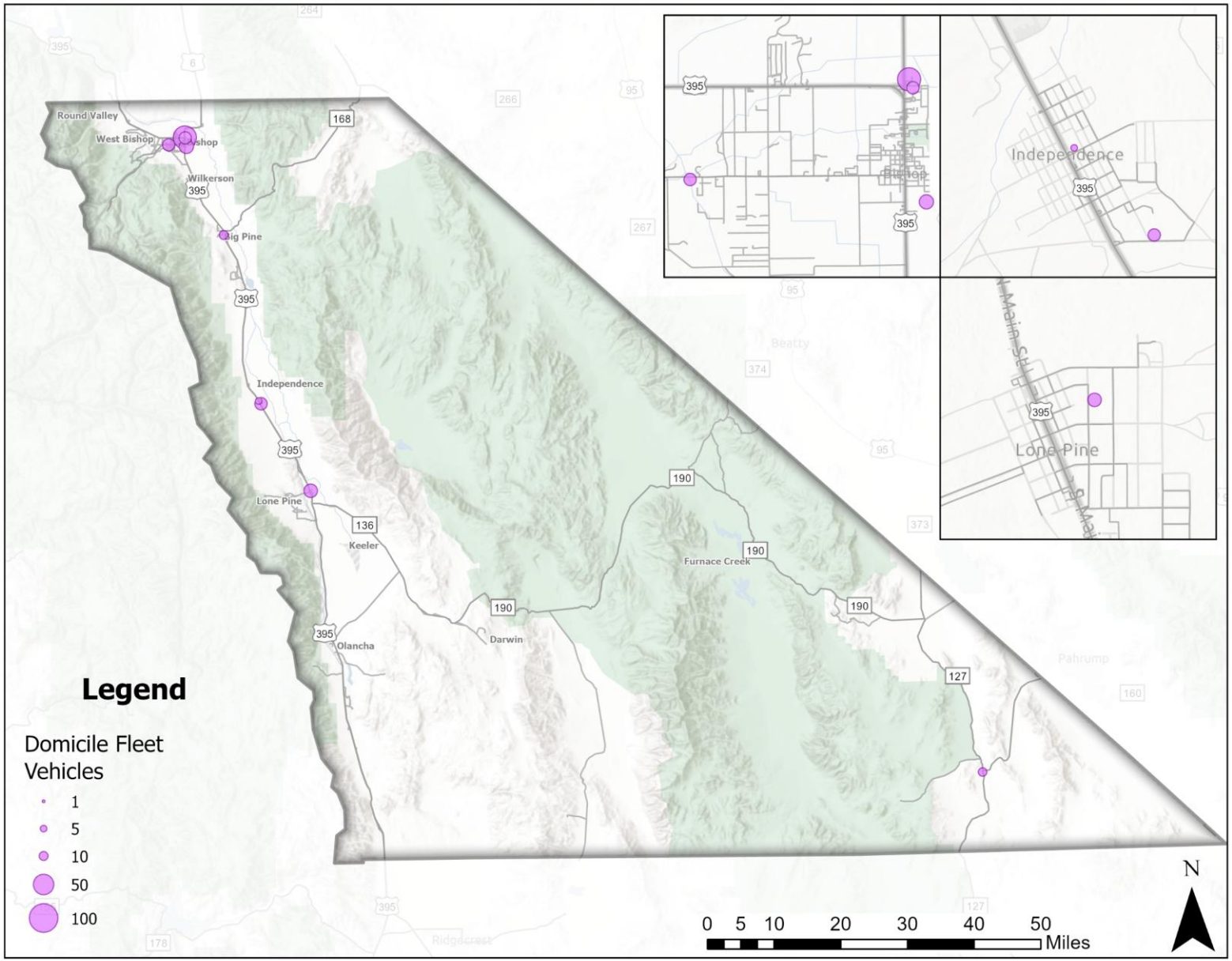


FIGURE 29: NUMBER OF DOMICILED VEHICLES PER LOCATION

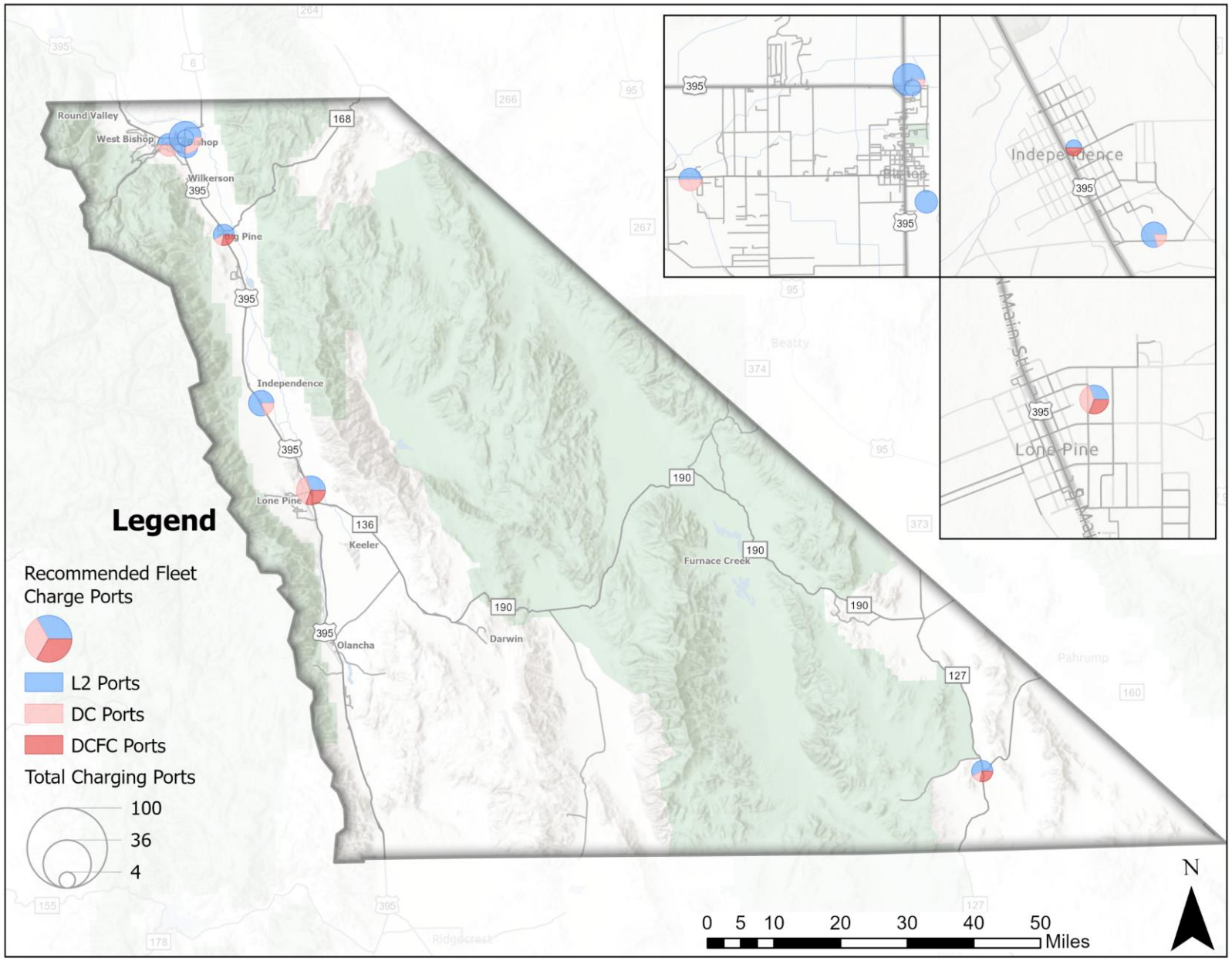


FIGURE 30: NUMBER OF RECOMMENDED CHARGE PORTS BY LOCATION

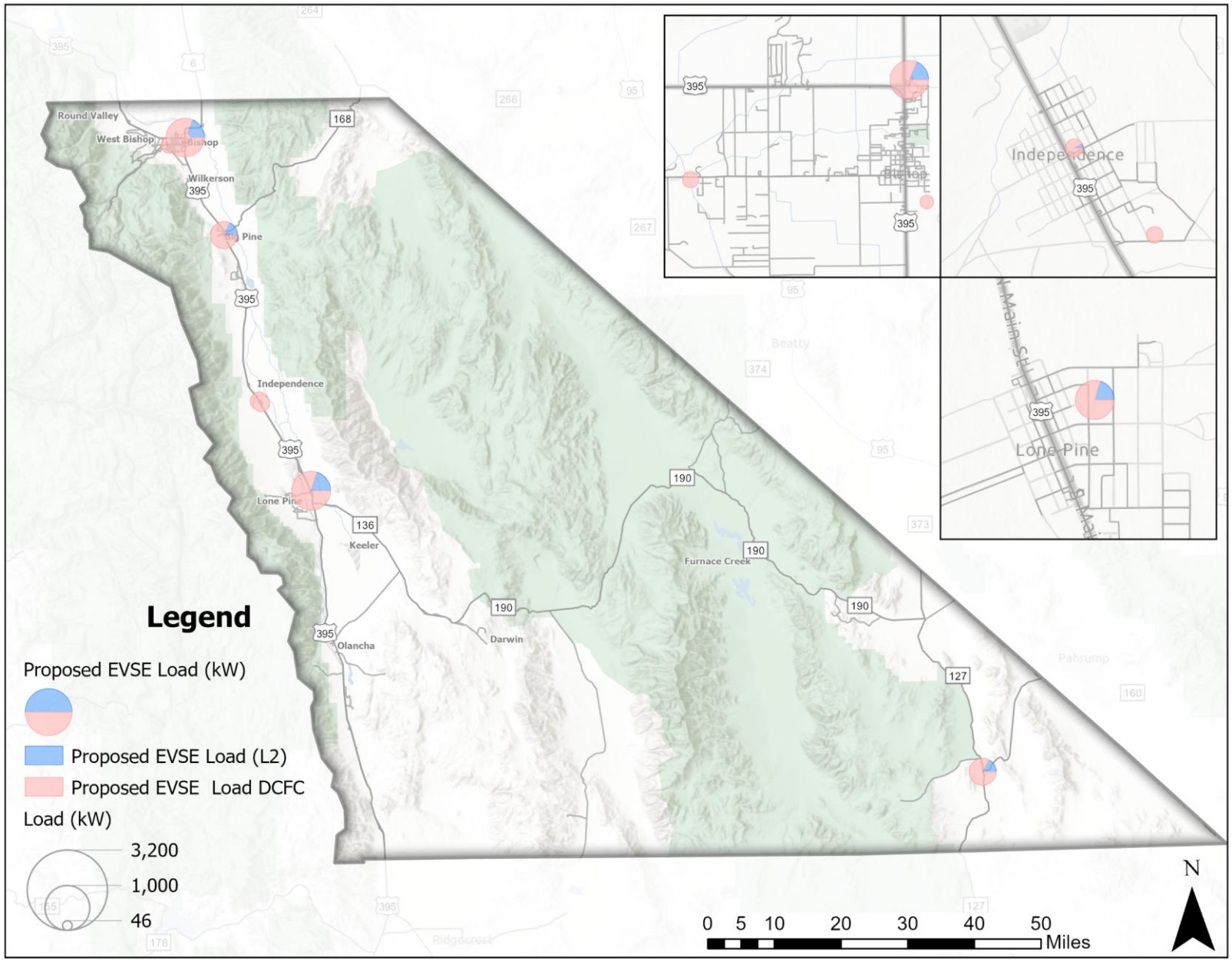


FIGURE 31: ESTIMATED EVSE ENERGY LOAD REQUIREMENTS BY LOCATION

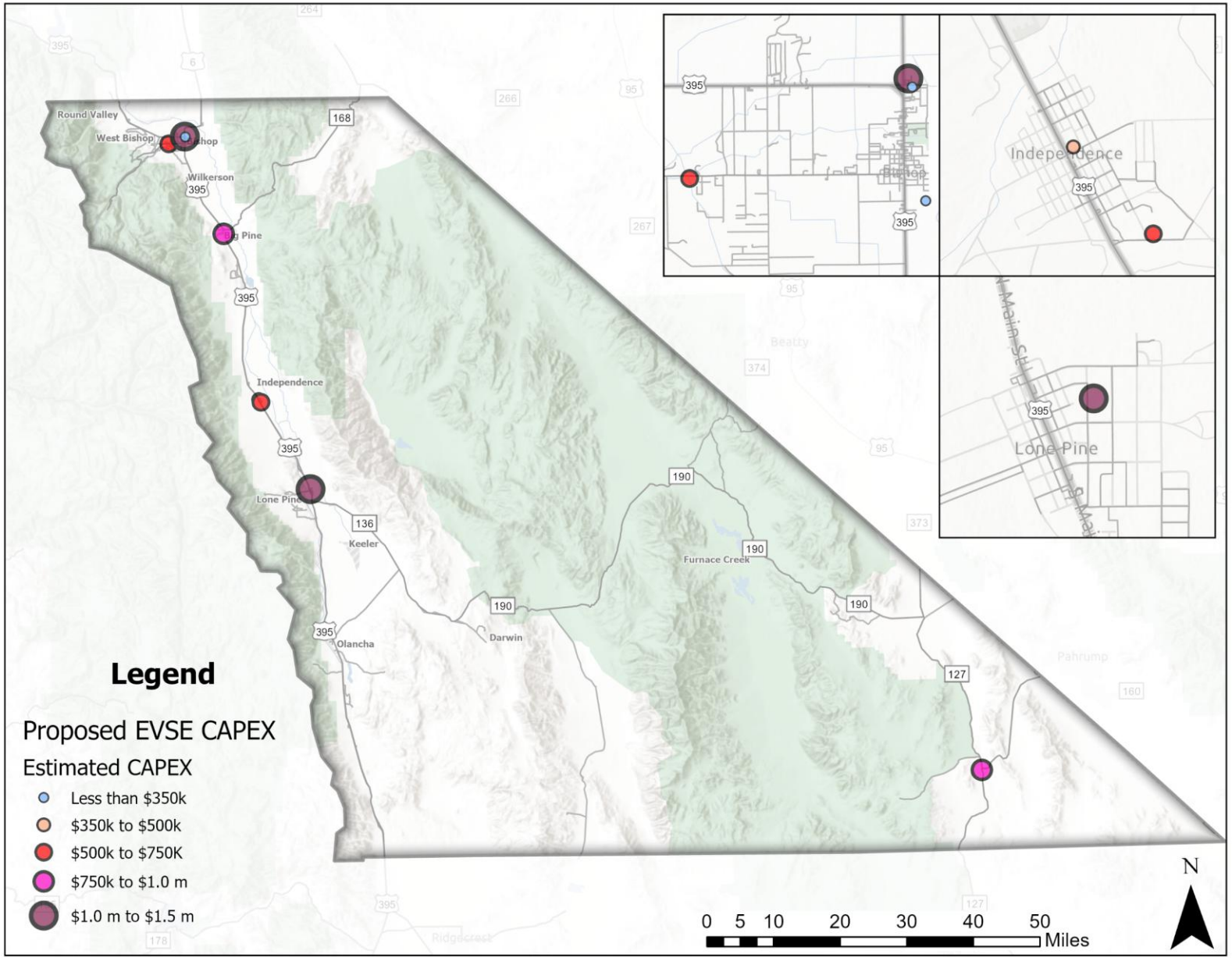


FIGURE 32: ESTIMATED CAPITAL EXPENSE (CAPEX) BY LOCATION

5.5.2 COST ESTIMATES

The capital (CAPEX) and operating (OPEX) expenditure estimates listed for each site include various cost factors contributing to typical municipal EV charger installations. To enable budget planning, they do not account for external grant funding or utility-side rebates (see **Appendix H** for available programs). The following two sections provide an overview of the cost categories considered for both CAPEX and OPEX estimates, respectively.

5.5.2.1 Capital Expenditure Estimates

To estimate capital expenses (CAPEX) incurred by the County for procurement and installation of the recommended charging station quantities, the following six cost categories were considered:

- **Core costs:**
  - EVSE hardware
  - Materials and electrical equipment
  - Civil work
  - Permitting
  - Utility fees
- **Supporting costs:**
  - Design and engineering
  - Pre-construction services
  - Construction management
  - Mobilization and commissioning
  - Administrative costs
- Contingency

The costs to procure the recommended quantity and types of charging stations and provide the necessary civil and electrical infrastructure were assessed for each site. The total CAPEX estimates across all cost categories are shown in **Table 13** in the previous section. **Appendix G** provides detailed assumptions behind these cost categories. CAPEX estimates for each facility, phase, and a breakdown by each of the cost categories are included in the site-specific sections of **Appendix F**.

5.5.2.2 Operations & Maintenance Expenditure Estimates

To estimate operations & maintenance expenses (OPEX) incurred by the County to run its future fleet EV charging infrastructure, the following cost categories were considered:

- Maintenance: routine, preventative, & corrective
- Vandalism/insurance
- Charging software
- Network fees
- Potential kWh fee (charging network)
- Electricity expenses
- Potential Low Carbon Fuel Standard (LCFS) revenue

5.6 MIXED USE OF CHARGING INFRASTRUCTURE FOR FLEET AND PUBLIC

The project team investigated the possibility of using some of the proposed fleet chargers in a public charger sharing scenario. Of the 10 sites assessed in this report, the Consolidated Office Building (COB) in Bishop and the Administrative Center / Annex Building in Independence have that potential as they are publicly accessible (i.e., not exclusively fleet sites). While such a system could help promote EV adoption by the public, implementation requires careful attention to hardware specifications, regulatory compliance, and operational complexities.

More information about the potential for mixed-use charging and the California requirements for publicly accessible chargers is included in the following.

5.6.1 OVERVIEW

Municipal agencies in California are increasingly interested in maximizing the utility of fleet EV charging infrastructure by allowing shared use — enabling employees or the public to access chargers during the day, while preserving overnight availability for fleet vehicles. This "dual-use" model can reduce infrastructure costs, accelerate return on investment, and improve charger utilization. However, implementing such a system requires careful attention to hardware specifications, regulatory compliance, and operational complexities.

5.6.1.1 Required Hardware Capabilities

To support pay-per-use, dual-access charging, the following hardware features are essential:

- OCPP Compliance: Chargers must support Open Charge Point Protocol (OCPP 1.6 or higher), allowing for remote management, dynamic user authentication, and integration with backend software platforms.
- CTEP Certification: Under California law (CCR Title 4, Division 9, Chapter 1), all Level 2 and DC Fast Chargers open to the public must be CTEP (California Type Evaluation Program) certified for metering accuracy and equipped with:
  - A readable, backlit display showing energy dispensed and cost.
  - Secure payment capabilities.
  - Clearly posted pricing information.
- Payment Systems: Chargers must support multiple payment methods including:
  - Credit/debit card readers with tap, swipe, and chip.
  - Mobile apps or QR-code-based access.
  - Contactless RFID or key fob for authorized users (e.g., employees).
- Network Connectivity: To enable real-time monitoring, session logging, and remote control, chargers must have reliable LTE/5G or wired network connectivity.
- User Authentication & Access Control:
  - Time-based or user-based restrictions are necessary to ensure fleet priority during designated hours.
  - Integration with access management platforms (e.g., LDAP or Active Directory) can restrict employee use during peak fleet hours.

5.6.1.2 Accessibility and Compliance

Dual-use chargers, particularly if open to the public, must comply with:

- ADA Accessibility Standards:
  - At least one accessible EV charging stall per site must meet ADA standards for reach height, path of travel, signage, and slope.
- Signage & Wayfinding:
  - Must include clear, permanent signage about user eligibility, hours of public access, and any penalties for unauthorized use during fleet-only periods.
- Site Layout Considerations:
  - Public-accessible chargers must be located outside secured fleet yards or government-only access zones unless access can be securely controlled.

5.6.1.3 Operational Challenges and Solutions

- Challenge 1: Fleet Availability Conflicts
  - **Risk**: A charger occupied by an employee or public user may be unavailable for fleet vehicles during overnight charging windows or during an unexpected daytime need.
  - **Solution**: Use time-of-day restrictions enforced via charger software (e.g., public access 7am–5pm; fleet-only access 5pm–7am). Add signage and software-based alerts or auto-idle penalties to ensure transition to fleet use.
- Challenge 2: Access Control in Secure Locations
  - **Risk**: If chargers are located behind security gates or within restricted lots, public access is infeasible or may create liability.
  - **Solution**: Limit dual-use to chargers installed in publicly accessible lots or at curbside locations. Chargers behind secure fencing should remain fleet-exclusive or employee-only with credentialed access.
- Challenge 3: Payment & Cost Recovery
  - **Risk**: Without robust metering and transaction systems, agencies cannot recover costs or manage usage equitably.
  - **Solution**: Use networked chargers that log individual sessions and enable tiered billing (e.g., free for employees, fee-based for public). Apply idle fees and demand-based pricing where appropriate.
- Challenge 4: Maintenance and Monitoring
  - **Risk**: Increased usage could lead to higher wear, more frequent downtime, and delayed fleet operations.
  - **Solution**: Implement preventive maintenance schedules and 24/7 support through the network operator. Track uptime KPIs and set alert triggers for charger faults or extended public use.

5.6.2 FEASIBILITY OF MIXED-USE FLEET CHARGER

Table 14 below consolidates critical considerations when assessing the potential of a particular site for mixed uses of charging infrastructure at Inyo County's facilities.

TABLE 14: MATRIX FOR ASSESSING FEASIBILITY OF MIXED-USE FLEET CHARGERS

SCENARIO	DUAL-USE FEASIBLE?	NOTES
CHARGERS IN GATED FLEET-ONLY LOTS	No	Not feasible due to access control, liability, and security concerns.
CHARGERS IN PUBLIC-FACING EMPLOYEE PARKING LOTS	Yes	Feasible with payment integration and access control software.
CHARGERS INSTALLED CURBSIDE OR IN VISITOR LOTS	Yes	Ideal for public access with time-of-day limitations.
CHARGERS IN UNDERGROUND GARAGES WITH BADGE-ONLY ACCESS	Limited	May be feasible for employees, but not public use.

5.6.3 CONCLUSION

Dual-use charging offers valuable benefits in municipal fleet operations by improving infrastructure ROI and promoting EV adoption among employees and the public. However, successful implementation depends on compliant hardware (CTEP, payment, accessibility), careful siting, and operational policies to prioritize fleet use. Inyo County should evaluate charger locations individually to determine suitability for dual-use and deploy technology controls to manage shared access effectively. Simply stated, a fleet-only charging strategy for Inyo County can be easier and less expensive to implement at sites with limited public access or traffic, primarily because the hardware and siting requirements are simpler. However, at select locations (also see County-owned sites included in **Section 4.5**), potential public benefits may outweigh the complexities and costs associated with County-provided public charging infrastructure.

6 IMPLEMENTATION PLAN

This Implementation Plan provides a clear, actionable roadmap to guide Inyo County Local Transportation Commission and its member agencies in deploying electric vehicle (EV) charging infrastructure for both public and fleet use. Building on prior tasks, including site identification (**Chapter 4**), fleet analysis, and economic evaluation (**Chapter 5**), this plan translates recommendations into a coordinated sequence of actions that address funding, design, utility coordination, permitting, procurement, and construction.

Implementation should follow a phased and adaptive approach, structured around near, mid, and long-term actions. These phases are aligned with key regulatory requirements, funding cycles, and for the County's fleet, vehicle replacement schedules. The framework emphasizes flexibility to respond to evolving technologies, funding opportunities, and market conditions while maintaining progress toward full fleet electrification and expanded public charging access.

Public Charging Deployment Strategy

For public charging infrastructure, the Plan provides step-by-step implementation guidance for priority sites identified in earlier tasks. This includes both publicly owned and privately owned locations, where applicable. Key actions include:

- Site validation and feasibility assessment
- Securing funding through grants, incentives, and partnerships
- Coordination with utilities for service upgrades and interconnection
- Site design, engineering, and permitting
- Procurement of equipment and installation contractors
- Selection of charging network providers and operational models
- Construction, commissioning, and activation

Emphasis is placed on preparing the County to compete for and deploy funding from programs such as the National Electric Vehicle Infrastructure (NEVI) program, especially along key travel corridors.

Fleet Electrification Strategy

For County and agency fleets, the Implementation Plan establishes a detailed transition pathway that coordinates vehicle replacement with charging infrastructure deployment. This includes:

- A vehicle-by-vehicle replacement schedule based on fleet lifecycle, operational needs, and regulatory mandates (e.g., ACF requirements)
- Facility-level charging infrastructure plans identifying the number, type (Level 2, DC fast), and location of chargers required to support fleet operations
- Integration of charging deployment with facility upgrades, electrical capacity constraints, and operational considerations
- Consideration of industry trends, vehicle availability, and budget constraints to ensure feasible and cost-effective implementation

This approach ensures that charging infrastructure is deployed concurrently with fleet transition needs, avoiding under- or over-building of infrastructure while supporting uninterrupted fleet operations.

Outreach and Education

In coordination with prior outreach efforts, the Implementation Plan includes a strategy for informing the public, stakeholders, and property owners about planned and installed charging infrastructure. This includes:

- Public-facing communication through County websites, social media, and press releases
- Integration with platforms such as PlugShare to improve visibility and utilization
- Targeted outreach to disadvantaged communities
- Coordination with private property owners for site-specific implementation

These efforts are intended to build awareness, support adoption, and ensure transparency throughout implementation.

6.1 IMPLEMENTATION TIMELINE

The implementation of EV charging infrastructure in Inyo County will be guided by regulatory deadlines, grant funding cycles, and the County's fleet replacement schedule. **Table 15** presents a phased approach to deployment.

TABLE 15: IMPLEMENTATION PHASING

PHASE	TIMEFRAME	FLEET CHARGING PRIORITIES	PUBLIC CHARGING PRIORITIES
NEAR-TERM	2026-2028	• Initiate electrification of light-duty fleet vehicles • Install Level 2 chargers at key County facilities; • Pilot DC fast charging at select fleet hubs	• Deploy priority corridor fast chargers (US 395) • Install Level 2 chargers at civic and community sites • Pursue NEVI/CFI funding
MEDIUM-TERM	2028-2030	• Expand electrification to medium-duty vehicles • Increase charging capacity at major facilities • Integrate fleet management systems	• Expand community charging in underserved areas • Add redundancy at high-use corridor sites • Support private site development
LONG-TERM	2031+	• Transition remaining fleet segments (including heavy-duty, where feasible) • Optimize charging operations and load management	• Complete network buildout • Fill geographic gaps • Upgrade or replace early installations as needed

Key Milestones

The implementation timeline is driven by several external factors:

Advanced Clean Fleets (ACF) Regulation: To electrify its fleet, Inyo County must comply with CARB's ACF regulation, which requires public fleets to begin purchasing zero-emission vehicles when replacing existing vehicles. The County's fleet replacement plan, detailed in **Chapter 5**, is structured to achieve compliance while maintaining an annual EV procurement budget of approximately $2 million.

NEVI Formula Program: California's share of NEVI funding provides opportunities to deploy DC fast charging along the US 395 and SR 190 corridors. Inyo County should monitor Caltrans announcements for future funding rounds and position priority corridor sites for applications.

CFI Discretionary Grants: The federal Charging and Fueling Infrastructure program offers additional funding for community charging projects, particularly those serving disadvantaged communities.

Utility Readiness and Interconnection: Coordination with LADWP and Southern California Edison (SCE) will influence project timelines, particularly where transformer upgrades or new service connections are required.

6.2 IMPLEMENTATION WORK PLAN

Deploying EV charging infrastructure involves a consistent sequence of steps whether for fleet or public use. The critical path below applies to both categories, though fleet installations at County-owned facilities will generally have simpler permitting and procurement requirements.

6.2.1 STEPS FOR CHARGER INSTALLATION

1. **Secure Funding:** Identify applicable grants, rebates, or budget allocations. For public charging, pursue NEVI, CFI, or CEC programs. For fleet charging, align with vehicle procurement budget cycles. See **Appendix H** for a list of funding opportunities.
2. **Finalize Site and Design:** Confirm site selection based on recommendations in **Chapter 4** (public) or **Chapter 5** and **Appendix F** (fleet). Engage an electrical engineer to prepare design documents including load calculations, panel schedules, and site layouts.
3. **Coordinate with Utility:** Submit service requests to LADWP (Big Pine, Independence, Lone Pine) or SCE (Bishop, Shoshone) as applicable. Utility coordination timelines vary but should be initiated early as transformer upgrades or new service connections can take 6-18 months or longer.
4. **Obtain Permits:** Submit electrical and building permit applications to the appropriate jurisdiction.
5. **Procure Equipment:** Select charging hardware and, for public chargers, a charging network operator. For public chargers, ensure CTEP certification and payment system compliance per California requirements.
6. **Install and Commission:** Complete construction, energize equipment, and conduct functional testing. Register public chargers with the selected network and verify connectivity.
7. **Publicize:** Register public chargers on PlugShare and other platforms. Update County website and notify the public per **Section 6.3**.

6.2.2 ROLES AND RESPONSIBILITIES

Table 16 identifies lead responsibilities for implementation activities.

TABLE 16: ROLES AND RESPONSIBILITIES

ACTIVITY	LEAD RESPONSIBILITY	SUPPORTING PARTIES
FUNDING APPLICATIONS	Inyo County LTC	Member agencies
FLEET SITE DESIGN AND INSTALLATION	County Public Works	Fleet managers, facilities staff
PUBLIC SITE COORDINATION (COUNTY PROPERTY)	County Public Works	Inyo County LTC, property managers

ACTIVITY	LEAD RESPONSIBILITY	SUPPORTING PARTIES
PUBLIC SITE COORDINATION (PRIVATE PROPERTY)	Inyo County LTC	Property owners, charging network operators
UTILITY COORDINATION	Project manager (per site)	LADWP, SCE
PERMITTING	Contractor or County staff	Building department
PUBLIC OUTREACH	Inyo County LTC	County communications staff

6.3 OUTREACH AND EDUCATION PLAN

A coordinated outreach and education strategy is important to support the successful implementation of EV charging infrastructure in Inyo County. In addition to informing the public about new and planned charger installations, outreach efforts will help build awareness of EV adoption, support equitable access to infrastructure, and assist coordination among County departments, partner agencies, and private stakeholders.

Consistent with development of this Plan, outreach efforts should continue to focus on three primary audiences: (1) public agencies and project partners, (2) the general public and EV users, and (3) private property owners associated with priority charging sites. Across these groups, outreach should be centered around the goal of providing equitable access to EV charging for the county's residents and visitors. Together, these efforts build on the stakeholder and community engagement conducted during plan development and transition toward implementation-focused communication and coordination.

6.3.1 AGENCY AND PARTNER COORDINATION

Ongoing coordination among Inyo County, the Inyo County Local Transportation Commission (ICLTC), member agencies, and regional partners will be critical to advancing implementation projects. As EV charging infrastructure moves to deployment, local and regional agencies should be in regular communication to align on priorities, funding opportunities, and project delivery.

Key actions include:

- **Providing periodic updates** to County departments, ICLTC, and partner agencies regarding project status, funding opportunities, and implementation timelines
- **Coordinating with regional and state agencies**, including Caltrans and the California Energy Commission,

to align local projects with broader corridor and funding strategies

- **Integrating EV infrastructure planning into existing capital improvement programs**, transportation planning efforts, and facility planning processes
- **Continuing coordination with utility providers**, including the Los Angeles Department of Water and Power (LADWP) and Southern California Edison (SCE), to support project development and grid readiness

These efforts will help ensure that implementation activities are coordinated, efficient, and responsive to evolving regulatory and funding conditions.

6.3.2 PUBLIC INFORMATION AND AWARENESS

Public-facing outreach should focus on increasing awareness of available charging infrastructure, supporting EV adoption, and ensuring that residents and visitors can easily locate and use charging facilities. Given Inyo County's role as a regional travel corridor and tourism destination, clear and accessible information is particularly important.

Key actions include:

- **Announcing new and planned charging installations** through County websites, social media, press releases, and partner agency communication channels
- **Registering new public charging stations** on widely used platforms such as PlugShare and other navigation tools to improve visibility and utilization
- **Providing clear signage and wayfinding** at charging locations, particularly along major corridors and in high-traffic areas (such as along the U.S. 395 corridor and in Bishop)
- **Coordinating with tourism and economic development organizations** to promote charging availability to visitors traveling through the region

Public outreach materials should be designed to be clear, accessible, and easy to understand, with consideration given to reaching diverse audiences, including visitors unfamiliar with EV charging.

6.3.3 PROPERTY OWNER COORDINATION

Several of the priority charging sites identified in this Plan are located on or may involve privately owned properties. Successful implementation at these locations will require early and ongoing coordination with property owners to confirm feasibility, establish partnerships, and define roles and responsibilities.

Key actions include:

- **Notifying property owners** of the inclusion of their sites in the Plan and the potential for future charging infrastructure development
- **Engaging property owners** to assess site interest, operational considerations, and potential partnership models
- **Providing information on available incentives**, funding opportunities, and potential revenue streams associated with hosting EV charging infrastructure
- **Coordinating with charging network providers and developers**, as appropriate, to facilitate project development on private sites

Clear communication and collaboration with property owners will be essential to advancing projects in locations that are critical to the overall charging network.

6.3.4 EQUITY-FOCUSED OUTREACH

Consistent with State requirements and County priorities, outreach efforts will include a focus on ensuring equitable access to EV charging infrastructure. This includes targeted engagement with underserved and rural communities that may face barriers to EV adoption and infrastructure access.

Key actions include:

- **Conducting targeted outreach in remote and underserved communities** identified in this Plan
- **Partnering with community-based organizations** to share information and gather feedback on implementation priorities
- **Ensuring that outreach materials are accessible** and, where appropriate, available in multiple formats or languages
- **Incorporating feedback from these communities** into implementation decisions and future updates to the Plan

These efforts will help ensure that the benefits of EV infrastructure deployment are distributed equitably across the county.

6.3.5 ONGOING MONITORING AND COMMUNICATION

Outreach and education will not be a one-time effort but an ongoing component of implementation. As new charging infrastructure is deployed and EV adoption evolves, communication strategies should be updated to reflect changing conditions and user needs.

ICLTC and County staff should periodically evaluate outreach effectiveness, track usage of charging infrastructure, and adjust communication strategies accordingly. Updates to online resources, mapping tools, and public-facing materials will help maintain accurate and useful information for all users.

APPENDIX

APPENDICES

APPENDIX A. EXISTING CONDITIONS ASSESSMENT

A.1 INTRODUCTION

This appendix describes the current environment regarding electric vehicles (EVs) in Inyo County, including its regional location, major transportation facilities, socioeconomic factors, EV adoption, and existing public charging infrastructure.

A.2 INYO COUNTY DEMOGRAPHICS

A.2.1 REGIONAL CONTEXT

Inyo County is located at the southern edge of the Sierra Nevada range, where it serves as a gateway between most of California and Death Valley. Inyo County includes a long stretch of the north-south highway (US 395) that connects Southern California with Northern California on the eastern side of the Sierra Nevada Mountain range. The County is diverse in geography (including both arid and flat areas of Death Valley and mountainous areas leading into the southern portion of the Sierra Nevada mountain range, including Mammoth Mountain immediately north of the County), as shown **Figure 1** in **Section 2.2** of this plan.

As of the 2020 Census, Inyo County had a total population of 19,016[15], while Bishop (its only incorporated city) had a population of 3,819 (or approximately 20% of the County's population). Other communities in Inyo County with 2020 populations over 500 include Dixon Lane-Meadow Creek (adjacent to Bishop with 2020 population of approximately 2,750), West Bishop (adjacent to Bishop with 2020 population of approximately 2,500), Lone Pine (2020 population of approximately 1,500), Big Pine (2020 population of approximately 1,400), and Independence (the County Seat with 2020 population of approximately 760). Additional smaller communities include Furnace Creek and Shoshone (both adjacent to Death Valley National Park).

Additionally, Inyo County is home to five tribes, including the Lone Pine Paiute-Shoshone, Timbisha Shoshone, Fort Independence Tribe, Big Pine Paiute, and Bishop Paiute Tribe. In total these tribes have a population of approximately 3,000.

A.2.2 COMMUTE PATTERNS

The Longitudinal Employer-Household Dynamics (LEHD) program is a U.S. Census Bureau initiative that integrates federal, state, and Census data to create comprehensive labor market statistics. The program's goal is to provide detailed insights into employment, workforce demographics, and commuting patterns, enabling policymakers, researchers, and businesses to analyze economic and labor trends effectively.

One of LEHD's key tools is *OnTheMap*[16], an interactive online mapping and data application that visualizes where people work and live. It allows users to explore commuting patterns, worker demographics, and industry information for specific geographic areas. The tool is particularly useful for urban planning, transportation projects, economic development, and labor market research.

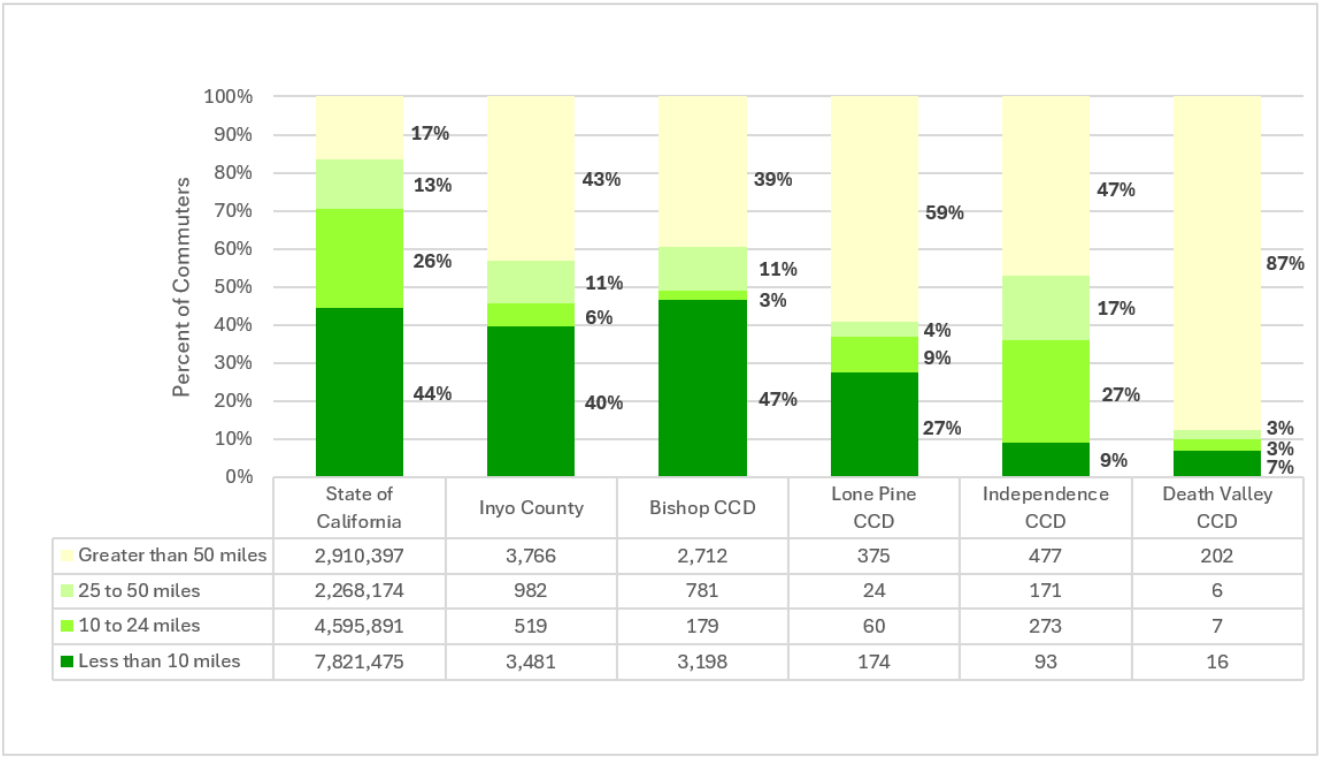
[15] https://data.census.gov/profile/Inyo_County,_California?g=050XX00US06027

[16] https://onthemap.ces.census.gov/

The LEHD data shows that, as of 2022, Inyo County had 8,748 workers living in the County and 7,015 people working in the County. Of those, well over half lived and/or worked in the Bishop area with much smaller numbers living and/or working in the southern portions of the County.

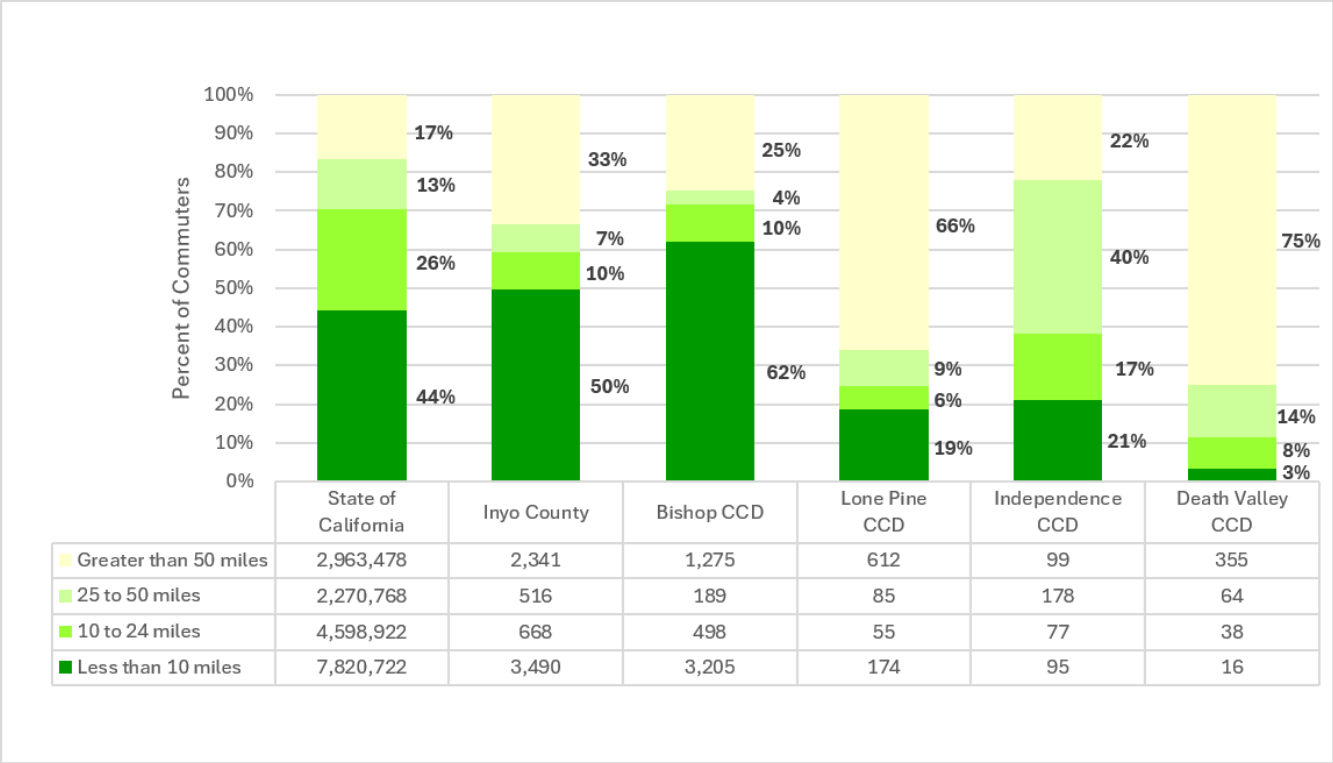
Analysis of LEHD data demonstrates that Inyo County's working population often has longer commute distances than the state of California as a whole. **Figure 33** and **Figure 34** show the breakdown of commute distances for workers who live in and work in Inyo County and its four census county divisions (CCD) geographies (Bishop, Lone Pine, Independence, and Death Valley), as well as the State of California as a whole, based on 2022 LEHD data. The table shows that while a similar number of workers commute less than ten miles (between 40% and 50%) for both Inyo County and California, a much higher percentage of workers in Inyo County commute more than 50 miles than those in California as a whole. When looking at the CCD areas within the county, the trend toward longer commutes is magnified, with a majority of commute distances in Lone Pine and Death Valley being over 50 miles.

Based on the same LEHD data described above, **Figure 35** shows the boundaries of the four CCD areas as defined by the US Census within the County as a whole and shows graphically the commute patterns for both residents and workers within each area. The diagrams show both the estimated distance and general direction of travel for each of the four CCD areas, Inyo County, and California.



	State of California	Inyo County	Bishop CCD	Lone Pine CCD	Independence CCD	Death Valley CCD
Greater than 50 miles	2,910,397	3,766	2,712	375	477	202
25 to 50 miles	2,268,174	982	781	24	171	6
10 to 24 miles	4,595,891	519	179	60	273	7
Less than 10 miles	7,821,475	3,481	3,198	174	93	16

FIGURE 33: COMMUTE DISTANCES BASED ON HOME LOCATION



	State of California	Inyo County	Bishop CCD	Lone Pine CCD	Independence CCD	Death Valley CCD
Greater than 50 miles	2,963,478	2,341	1,275	612	99	355
25 to 50 miles	2,270,768	516	189	85	178	64
10 to 24 miles	4,598,922	668	498	55	77	38
Less than 10 miles	7,820,722	3,490	3,205	174	95	16

FIGURE 34: COMMUTE DISTANCES BASED ON WORK LOCATION

FIGURE 35: INYO COUNTY COMMUTE PATTERNS

A.2.3 MULTI-FAMILY HOUSING

According to the US Census American Community Survey[17], as of 2022, within Inyo County approximately 63% of housing units were single family detached, 1% were single family attached, 2% were housing units with 2 units in the structure, 3% were housing units with 3-4 units in the structure, 4% were housing units with 5-9 units in the structure, 1% were housing units with 10 or more units in the structure, 23% were mobile homes, and about 2% were boats, RVs, or vans. This data indicates that approximately 64% of housing units are single-family, while approximately 36% of housing units are not single family. Additionally, the data indicates that approximately 67% of households are owner-occupied while 23% are renter-occupied.

Inyo County staff provided the project team with data of parcels identified to be multi-family, including apartments and condominiums. **Table** 17 shows that there are approximately 900 apartment and condominium units within Inyo County communities. Because currently most multi-family residential developments do not provide EV chargers on-site (especially in rural areas and small communities such as those in Inyo County), of key importance to residents of the residents of multi-family dwelling units (MFDUs) is the availability of public charging close to their homes.

TABLE 17: INYO COUNTY MULTI-FAMILY UNITS

COMMUNITY	APARTMENT UNITS	CONDOMINIUM UNITS	TOTAL MULTI-FAMILY UNITS
BISHOP	689	101	790
BIG PINE	20	0	20
LONE PINE	75	0	75
ROCKING K	9	0	9
COUNTYWIDE	793	101	894

A.2.4 DISADVANTAGED COMMUNITIES

Inyo County residential land use is generally limited to small, dispersed communities which results in long trip lengths for all trip categories. Residents in low-density areas typically do not have shopping, recreation, or entertainment destinations located in walking proximity. This results in significant vehicular travel, which contributes to poor air quality and reduces livability (as measured by time in vehicles or traffic).

The CalEnviroScreen 4.0 model was used to identify communities in Inyo County that face multiple burdens of pollution and socioeconomic disadvantage. The model combines a pollution burden score that measures the amount of pollution (i.e., potential pollution exposures such as air quality, drinking water contamination, pesticide use, toxins from facilities, and traffic density) that an area faces with

[17] https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/ACS_Housing_Units_in_Structure_Boundaries/FeatureServer

a population characteristics score that measures the sensitivity of the local population in terms of health status, age, and socioeconomic factors, resulting in an overall score that ranges from 0 to 100%. Scores of 70% or greater are considered high-scoring areas and are generally considered disadvantaged as they are more susceptible to adverse environmental, socioeconomic, or cultural hardships.

Figure 37 shows a CalEnviroScreen 4.0 map of Inyo County demonstrating that none of Inyo County's land area or population fall within areas designated as Disadvantaged Communities (70% or higher in average vulnerability score).

The Justice40 initiative[18] establishes a federal government-wide goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. **Figure 38** displays Disadvantaged Communities (DAC) and/or Low-Income Communities (LIC) as designated by the federal Justice 40 mapping[19]. The figure shows that much of the southern half of the County, including Lone Pine, Furnace Creek, and Shoshone, falls within areas designated as LICs.

[18] https://www.whitehouse.gov/environmentaljustice/justice40/

[19] https://dot.ca.gov/-/media/dot-media/programs/esta/documents/transportation-electrification/nevi/2024-ca-nevi-plan-update-a11y.pdf, Figure 14

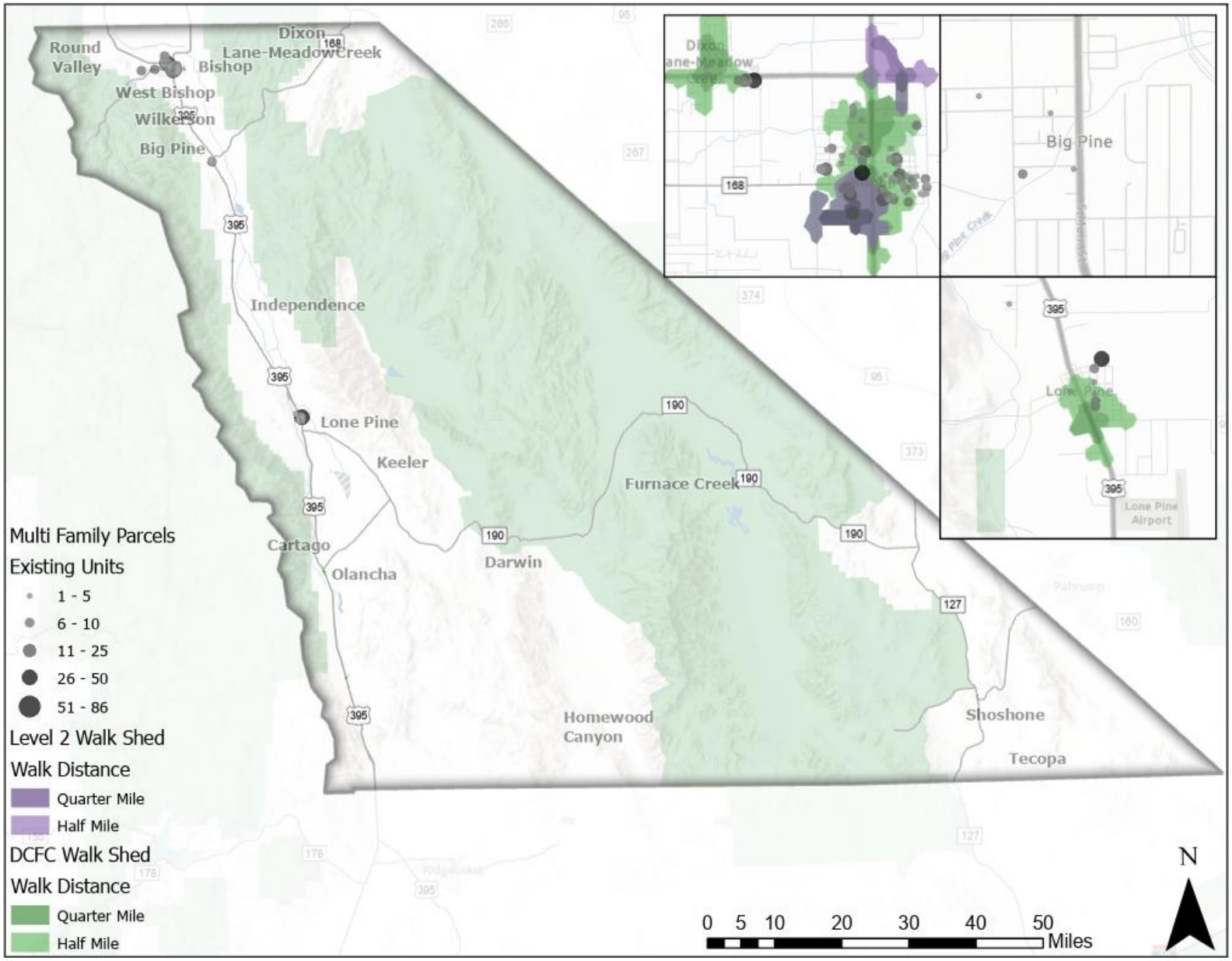


FIGURE 36: EXISTING MULTI-FAMILY UNITS AND EV CHARGER WALK SHEDS

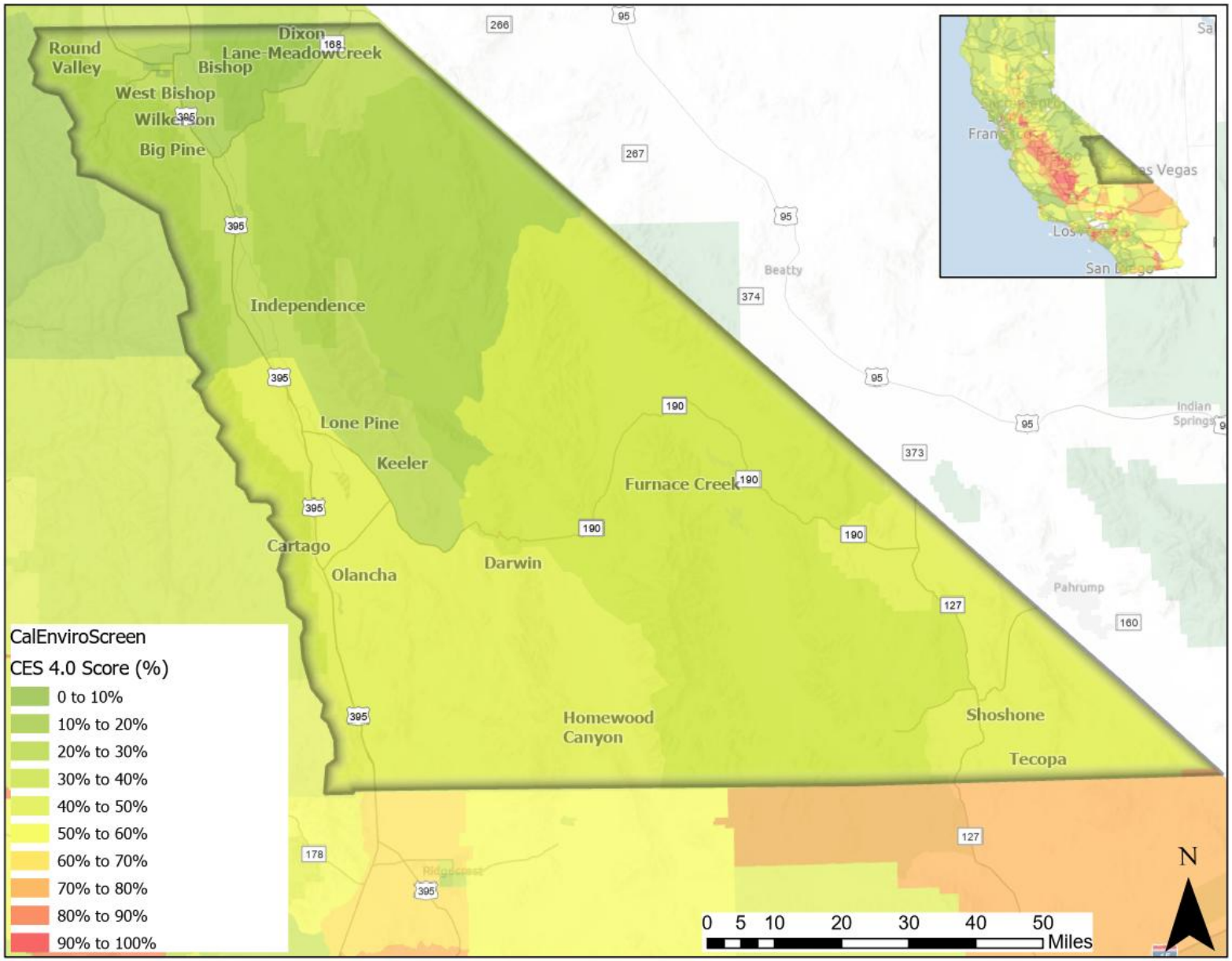
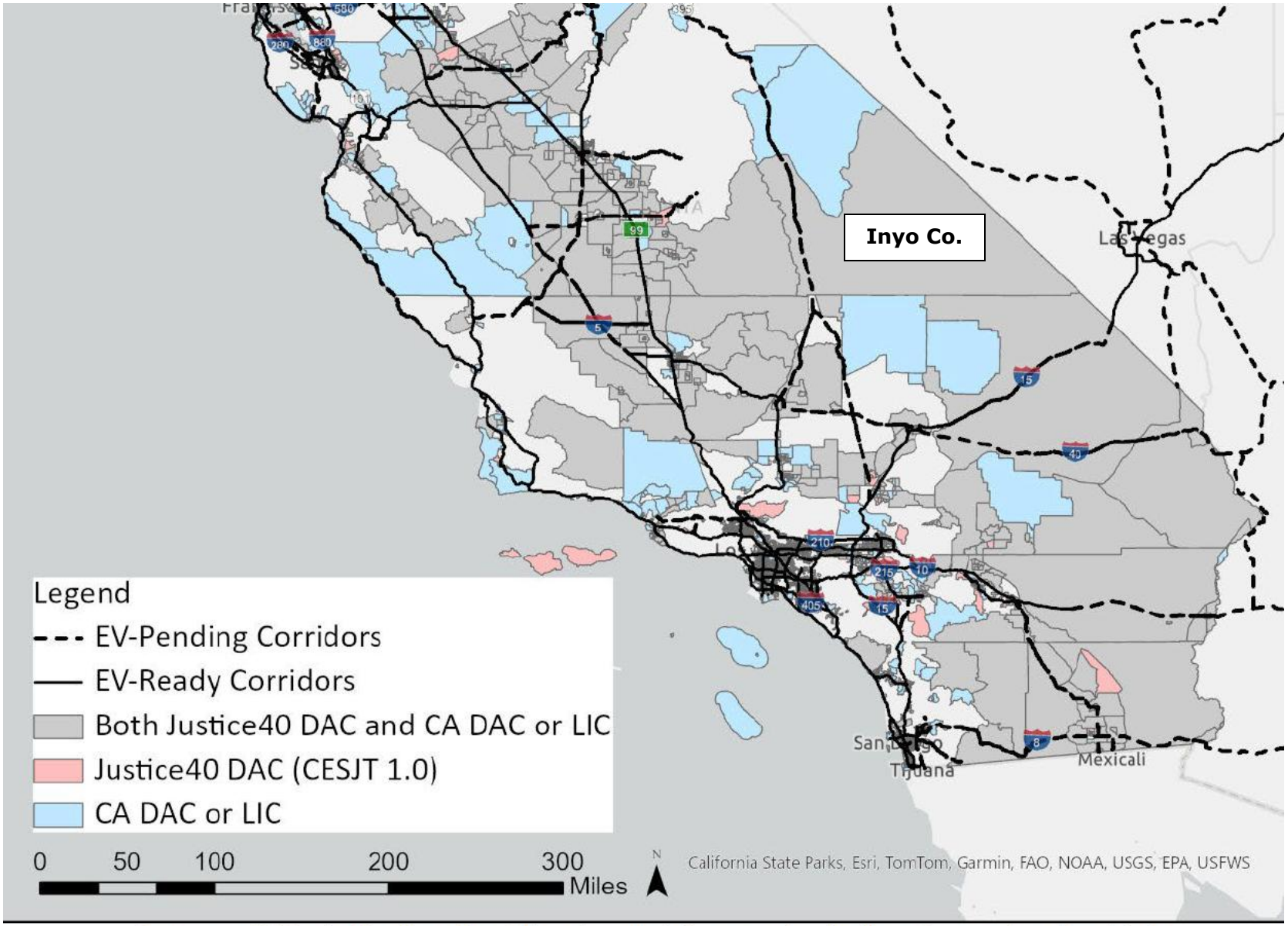


FIGURE 37: CAL ENVIROSCREEN 4.0 MAP OF INYO COUNTY



Source: CEC staff using the Climate and Economic Justice Screening Tool 1.0

FIGURE 38: FEDERAL JUSTICE40 DESIGNATED DISADVANTAGED COMMUNITIES IN INYO COUNTY

A.3 PROGRESS TOWARD ELECTRIFICATION OF TRANSPORTATION

A.3.1 ELECTRIC VEHICLE ADOPTION

While Inyo County has seen increased adoption of zero-emission vehicles (ZEVs), particularly Battery-Electric Vehicles (BEVs) and to a lesser extent Plug-In Hybrid Electric Vehicles (PHEVs)[20], in recent years, its progress (like in many of the mostly rural counties in the state) has lagged behind more urbanized areas and the state as a whole.

Table 18 shows the total vehicle population and ZEV population by year, for years 2010 through 2024 according to the California Energy Commission (CEC)[21]. The table shows that as of 2010, there were very few ZEVs in both Inyo County and the State of California as a whole. By the end of 2024, there were just over 300 ZEVs in Inyo County and almost 1.9 million ZEVs in the State of California. The table shows that while in 2024 ZEVs represented approximately 6.5% of vehicles statewide, they only represented about 1.6% of vehicles in Inyo County, as also shown in **Figure 2** in **Section 2.2**. The County's ZEV population in 2024 included 175 BEVs (58% of all ZEVs) and 127 PHEVs.

Table 19 shows light-duty vehicle sales (including ZEV sales) by quarter from 2021 through the first quarter of 2025 both statewide and in Inyo County, according to the CEC[22]. The table shows that ZEV sales as a percentage of light-duty vehicle sales have relatively steadily increased quarter-over-quarter statewide but have gone up and down in Inyo County, and the increase in Inyo County (from about 5% in 2021 to about 9% in 2024) trails that of the state (from about 13% in 2021 to about 25% in 2023) by a wide margin.

[20] This section explicitly distinguishes between PHEVs and BEVs. Yet, in the long term, fully-electric EVs (i.e. BEVs) are expected to dominate the light-duty ZEV market. Current state regulation (in the form of the Advanced Clean Cars II rule) does not consider PHEVs as ZEVs and only allows for PHEVs to partially count towards meeting their increasing ZEV sales requirements.

[21] https://www.energy.ca.gov/filebrowser/download/6311?fid=6311#block-symsoft-page-title

[22] https://www.energy.ca.gov/filebrowser/download/6737?fid=6737#block-symsoft-page-title

TABLE 18: VEHICLE POPULATION BY TYPE

YEAR	TOTAL VEHICLES		ZEV		ZEV (% OF TOTAL)	
	CALIFORNIA	INYO CO	CALIFORNIA	INYO CO	CALIFORNIA	INYO CO
2010	22,286,130	14,996	754	-	0.00%	0.00%
2011	22,288,061	14,756	5,857	-	0.03%	0.00%
2012	22,502,680	14,909	18,356	2	0.08%	0.01%
2013	23,270,577	15,224	52,427	6	0.23%	0.04%
2014	23,899,504	15,361	108,939	9	0.46%	0.06%
2015	24,412,289	15,548	166,168	12	0.68%	0.08%
2016	25,300,683	15,956	230,171	15	0.91%	0.09%
2017	28,418,039	18,140	322,762	26	1.14%	0.14%
2018	28,681,493	18,377	448,567	42	1.56%	0.23%
2019	29,029,787	18,568	559,969	53	1.93%	0.29%
2020	28,665,934	18,560	628,473	78	2.19%	0.42%
2021	29,942,517	20,375	827,760	124	2.76%	0.61%
2022	29,300,776	19,736	1,099,131	176	3.75%	0.89%
2023	29,344,963	19,701	1,502,119	238	5.12%	1.21%
2024	29,403,481	19,500	1,899,838	302	6.46%	1.55%

TABLE 19: LIGHT-DUTY VEHICLE SALES BY TYPE

YEAR	QUARTER	TOTAL LIGHT DUTY VEHICLE SALES		ZEV		ZEV (% OF TOTAL)	
		CALIFORNIA	INYO CO	CALIFORNIA	INYO CO	CALIFORNIA	INYO CO
2021	Q1	441,031	130	43,656	6	9.9%	4.6%
	Q2	502,251	181	56,259	11	11.2%	6.1%
	Q3	414,603	138	56,706	7	13.7%	5.1%
	Q4	349,980	140	59,494	7	17.0%	5.0%
2022	Q1	397,851	150	69,136	9	17.4%	6.0%
	Q2	404,714	129	71,982	7	17.8%	5.4%
	Q3	376,602	146	75,944	14	20.2%	9.6%
	Q4	401,616	148	91,300	17	22.7%	11.5%
2023	Q1	427,650	158	99,285	9	23.2%	5.7%
	Q2	474,893	171	119,554	12	25.2%	7.0%
	Q3	442,738	160	118,937	19	26.9%	11.9%
	Q4	412,542	157	102,501	9	24.8%	5.7%
2024	Q1	430,081	125	103,017	15	24.0%	12.0%
	Q2	451,891	139	116,814	14	25.9%	10.1%
	Q3	438,666	141	115,240	13	26.3%	9.2%
	Q4	431,392	161	108,303	11	25.1%	6.8%
2025	Q1	436,396	158	100,326	14	23.0%	8.9%

A.3.2 CVRP DATA

California's Clean Vehicle Rebate Project (CVRP) was initiated in March 2010 and was paused indefinitely in 2024. CVRP offered incentives to purchasers of PEVs in California; however, the program is elective and participation rates can be impacted by vehicle eligibility and applicant income caps. As of the end of 2023[23], CVRP had issued over 590,000 ZEV rebates (equaling about 34% of all ZEV sales in the state between 2010 and 2023). **Table** 20 shows CVRP data for BEVs, PHEVs, and FCEVs between 2010 and the end of 2023 for both Inyo County and statewide[24]. The same dataset includes the dollar amount of each rebate and the total value of rebates by type and location. **Table** 21 shows that statewide rebates total more than $1.5 billion while Inyo County rebates total just over $100,000 over the life of the program. Inyo County represents approximately 0.01% of total rebates and total rebate dollars statewide, while Inyo County is home to about 0.07% of California's

[23] By late 2023, CVRP funding was nearly exhausted which may have affected EV registration.

[24] https://cleanvehiclerebate.org/en/rebate-statistics

light-duty vehicle population and about 0.02% of the states ZEV population at the end of 2023. This suggests that CVRP was overall underutilized in Inyo County compared with the rest of the state.

TABLE 20: CVRP REBATES BY TYPE

YEAR	BEV REBATES		PHEV REBATES		FCEV REBATES		TOTAL REBATES	
	STATE WIDE	INYO CO	STATE WIDE	INYO CO	STATE WIDE	INYO CO	STATE WIDE	INYO CO
2010	67	-	-	-	8	-	135	-
2011	4,424	-	-	-	1	-	4,521	-
2012	3,741	-	7,376	-	3	-	11,219	-
2013	15,389	-	13,615	2	23	-	29,152	3
2014	24,610	-	18,942	1	43	-	43,702	1
2015	31,343	1	15,040	1	56	-	46,543	2
2016	27,935	1	15,497	1	875	-	44,455	2
2017	27,578	1	17,992	2	2,085	-	47,757	3
2018	46,160	7	25,050	1	2,076	-	73,391	8
2019	50,244	4	18,901	1	1,852	-	71,125	5
2020	34,707	4	8,016	-	853	-	43,702	4
2021	40,928	3	6,152	1	2,483	-	49,636	4
2022	34,041	3	2,414	0	1,792	-	38,351	3
2023	85,216	8	2,996	1	2,130	-	90,369	9
TOTAL	**426,383**	**32**	**151,991**	**11**	**14,280**	**-**	**594,058**	**44**

TABLE 21: CVRP REBATE TOTALS BY TYPE

VEHICLE TYPE	TOTAL REBATES		TOTAL FUNDING	
	CALIFORNIA	INYO CO	CALIFORNIA	INYO CO
BEV	426,388	32	$1,183,526,034	$79,000
PHEV	151,996	11	$248,361,445	$23,000
FCEV	14,280	-	$73,038,818	–
OTHER	1,404	1	$2,187,740	$900
TOTAL	**594,068**	**44**	**$1,507,114,037**	**$102,900**

A.3.3 EXISTING EV USAGE IN INYO COUNTY

A number of data sources exist that track person and vehicular trips throughout local areas and the nation as a whole. One such data source is Replica[25], a "big data" source that estimates trips

[25] https://www.replicahq.com/

nationwide (by means of "mega-regions") and allows users to extract data for desired sub-areas, both by actual area of travel and by home location of drivers themselves. This allows users to better study the travel patterns of roadway users as well as users who begin and/or end trips in an area of interest. Replica includes BEV trips, allowing users to estimate and map BEV auto usage in terms of vehicles on roadways and vehicle miles traveled (VMT). According to Replica, approximately 0.7 percent of vehicular trips and associated VMT originating, terminating (or both) in Inyo County are made by BEVs. This figure trails the slightly over 1.2% of vehicles countywide that are BEVs, indicating that fewer trips and associated VMT are made by each BEV when compared to an internal combustion engine (ICE) powered vehicle.

Figure 39 through **Figure 41** show demographic data associated with BEV drivers who travel to, from, or within Inyo County according to Replica. The data shows that well over 50% of BEV drivers have a household income of over $100,000, while over 60% of BEV drivers have at least two vehicles in their household. Additionally, over 70% of BEV drivers live in a single-family house (the most likely to have home-based charging for a BEV) according to the data. **Figure 42** and **Figure 43** show the distribution of vehicle trips by distance and travel time for both all vehicles and BEVs.

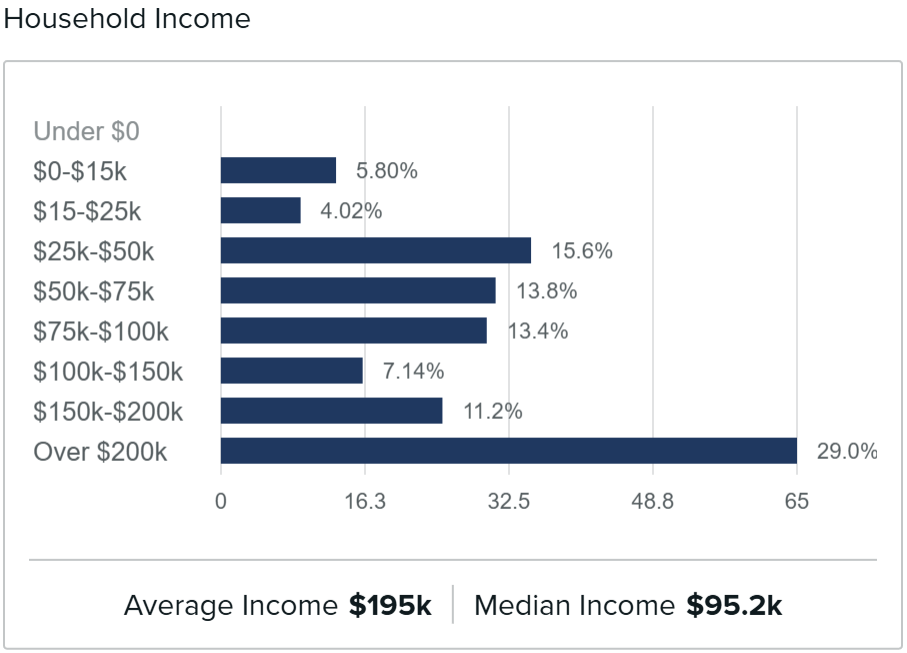


FIGURE 39: HOUSEHOLD INCOME OF BEV DRIVERS

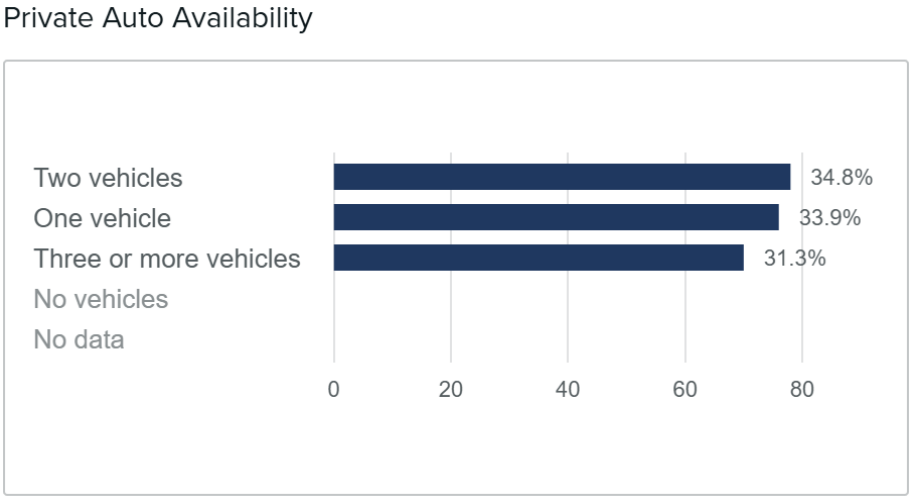


FIGURE 40: AUTO OWNERSHIP OF BEV DRIVERS

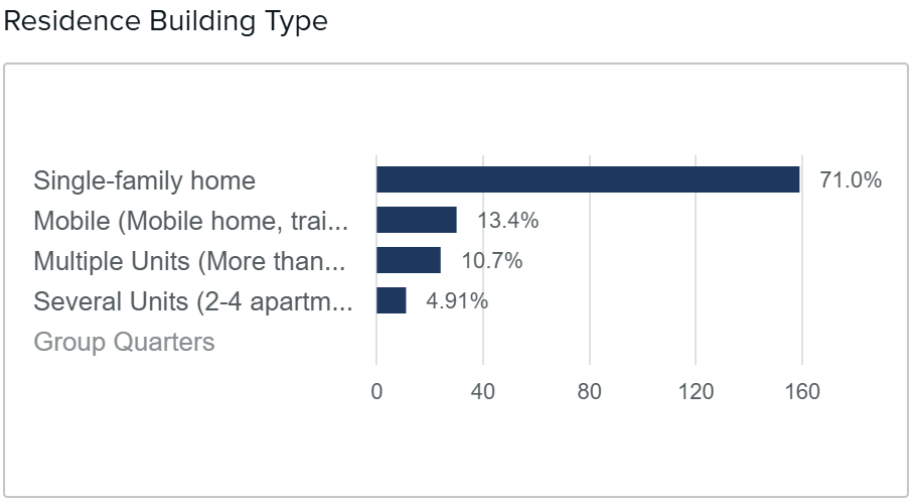


FIGURE 41: RESIDENTIAL BUILDING TYPE OF BEV DRIVERS

Figure 44 shows some of the data obtained via the Replica platform distributed geographically in Inyo County. Similar to the CVRP data, BEV trips appear to be focused around the urban areas including and surrounding Bakersfield. Additionally, as expected portions of Interstate 5 and State Route 99 show the highest concentrations of daily BEV traffic. The figure also shows that existing infrastructure (particularly DC Fast Chargers) tends to be located along these highways that display higher amounts of BEV traffic.

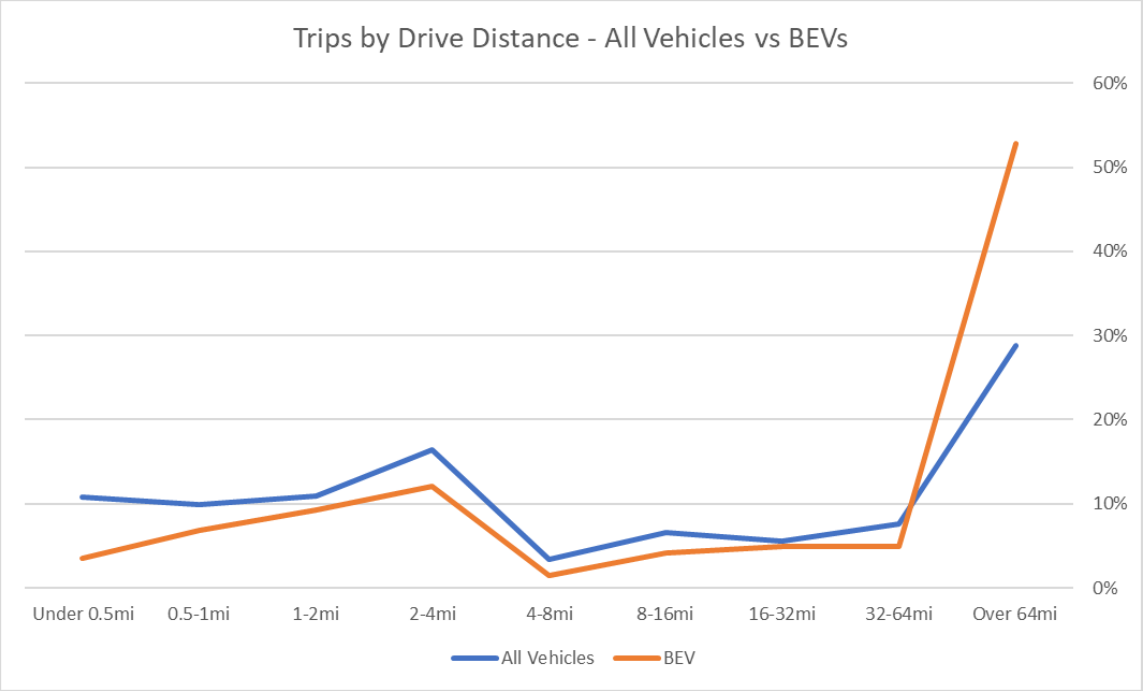


FIGURE 42: TRIPS BY DRIVE DISTANCE (REPLICA)

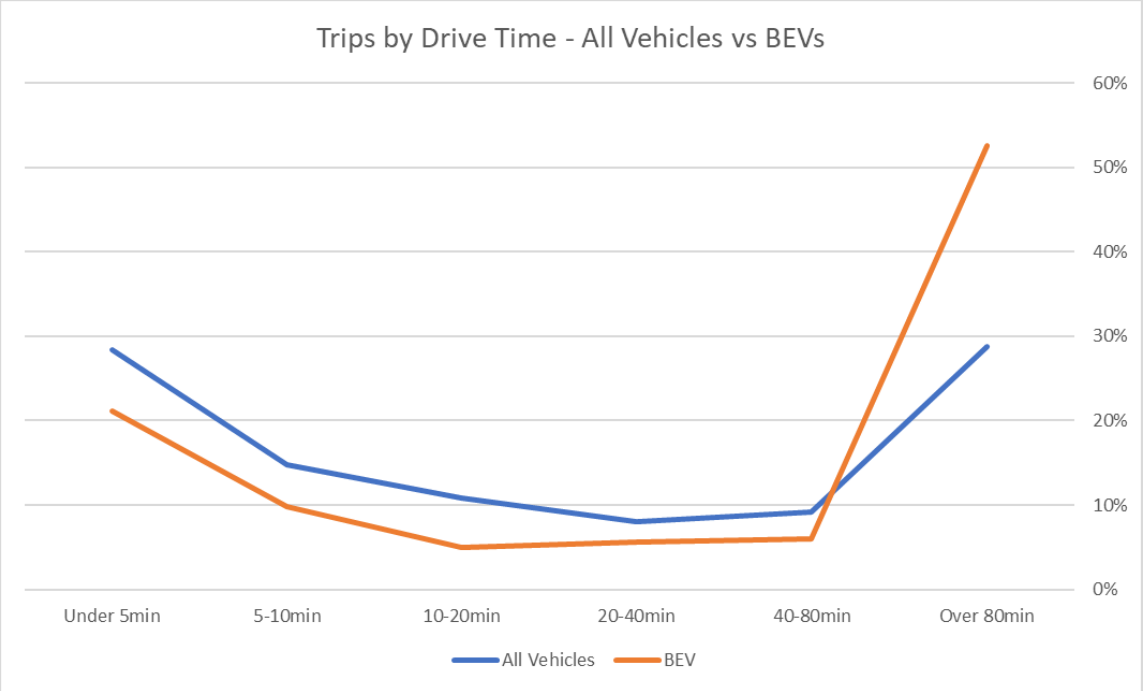


FIGURE 43: TRIPS BY DRIVE TIME (REPLICA)

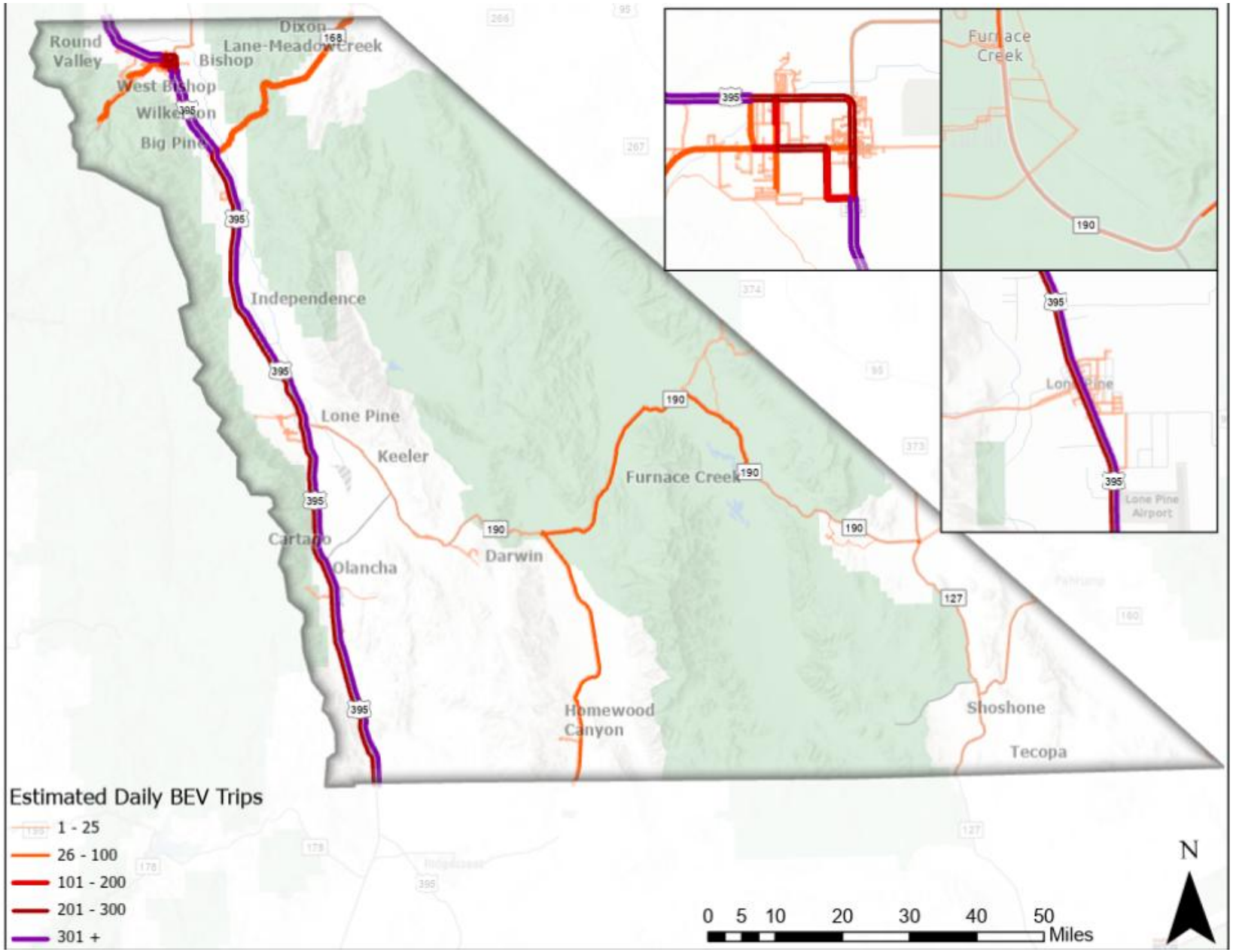


FIGURE 44: ESTIMATED BEV TRIPS IN INYO COUNTY

A.4 EXISTING CHARGING INFRASTRUCTURE IN INYO COUNTY

Section 2.3 in this plan provides an overview of existing charging infrastructure in Inyo County. For details on specific Level 2 and DC fast charging locations, see the following sections.

A.4.1 LEVEL 2 CHARGERS

Table 22 and **Figure 45** show the locations of public Level 2 charging stations with a total of 18 charge ports in the County that are listed in the AFDC database. The table shows that all Level 2 charging locations in Inyo County have 6 or fewer charge ports. **Table** 23 shows the opening year of Level 2 charger locations by network provider. The table shows that Blink was the first EV charger network to open chargers prior to 2020, while the 6 Tesla Destination chargers opened recently in 2024.

Figure 46 shows a 20-mile drive shed (representing approximately one hour of Level 2 charging for a typical EV) along with shorter 5-mile and 10-mile drive sheds. These drive sheds visualize the effective service area the existing public chargers in Inyo County provide for relatively quick access for EV drivers. The map shows that a fairly small percentage of Inyo County's land area is within 20 miles of any existing Level 2 chargers within the County. It should be noted that these drive sheds do not account for chargers located adjacent to but outside Inyo County.

TABLE 22: EXISTING LEVEL 2 CHARGERS (PLUGS) IN INYO COUNTY

STATION NAME	CITY/ COMMUNITY	EV NETWORK	YEAR OPENED	LEVEL 2 J1772	LEVEL 2 TESLA	TOTAL L2 PLUGS
Best Western Bishop Lodge - Tesla Destination	Bishop	Tesla Destination	2024	-	6	6
Ranch at Death Valley	Furnace Creek	Blink	2018	2	-	2
Inn at Death Valley	Death Valley	Blink	2018	1	-	1
Inn at Death Valley	Death Valley	Non-Networked	2018	2	-	2
Control Substation	West Bishop	Shell Recharge	2022	2	-	2
Eastern Sierra Transit Authority	Bishop	evGateway	2022	1	-	1
LADWP - Bishop Telecomm	Bishop	Non-Networked	2020	4	-	4
TOTAL				**12**	**6**	**18**

TABLE 23: EXISTING LEVEL 2 CHARGERS (PLUGS) IN INYO COUNTY – BY OPENING YEAR

EV NETWORK	2010-2019	2020	2021	2022	2023	2024	TOTAL
TESLA SUPERCHARGER	-	-	-	-	-	-	-
RIVIAN ADVENTURE NETWORK	-	-	-	-	-	-	-
ELECTRIFY AMERICA	-	-	-	-	-	-	-
TESLA DESTINATION	-	-	-	-	-	6	6
BLINK	3	-	-	-	-	-	3
SHELL RECHARGE	-	-	-	2	-	-	2
EVGATEWAY	-	-	-	1	-	-	1
NON-NETWORKED	2	4	-	-	-	-	6
TOTAL COUNTY	**5**	**4**	**-**	**3**	**-**	**6**	**18**

Note: Data through December 1, 2024

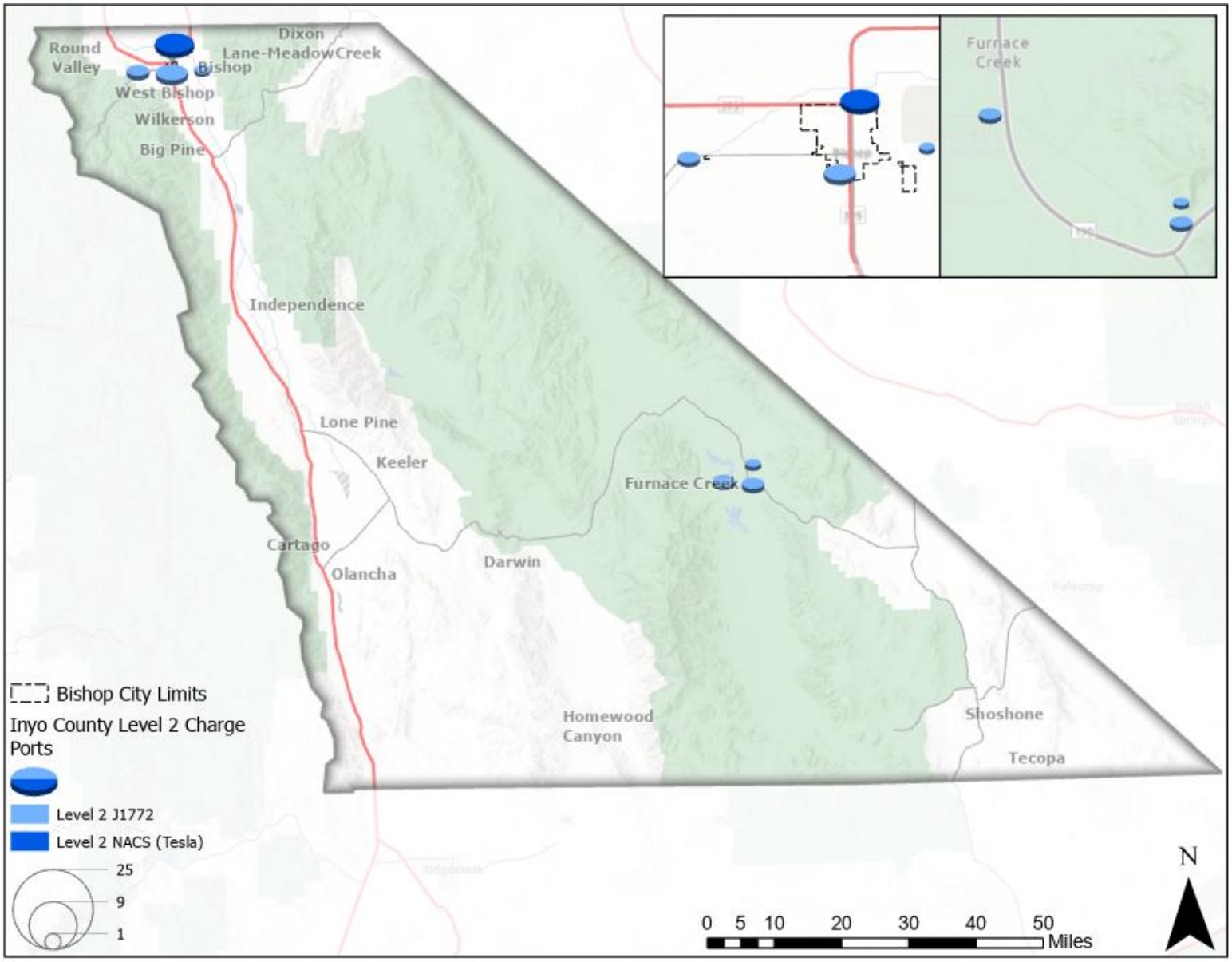


FIGURE 45: LEVEL 2 CHARGERS IN INYO COUNTY

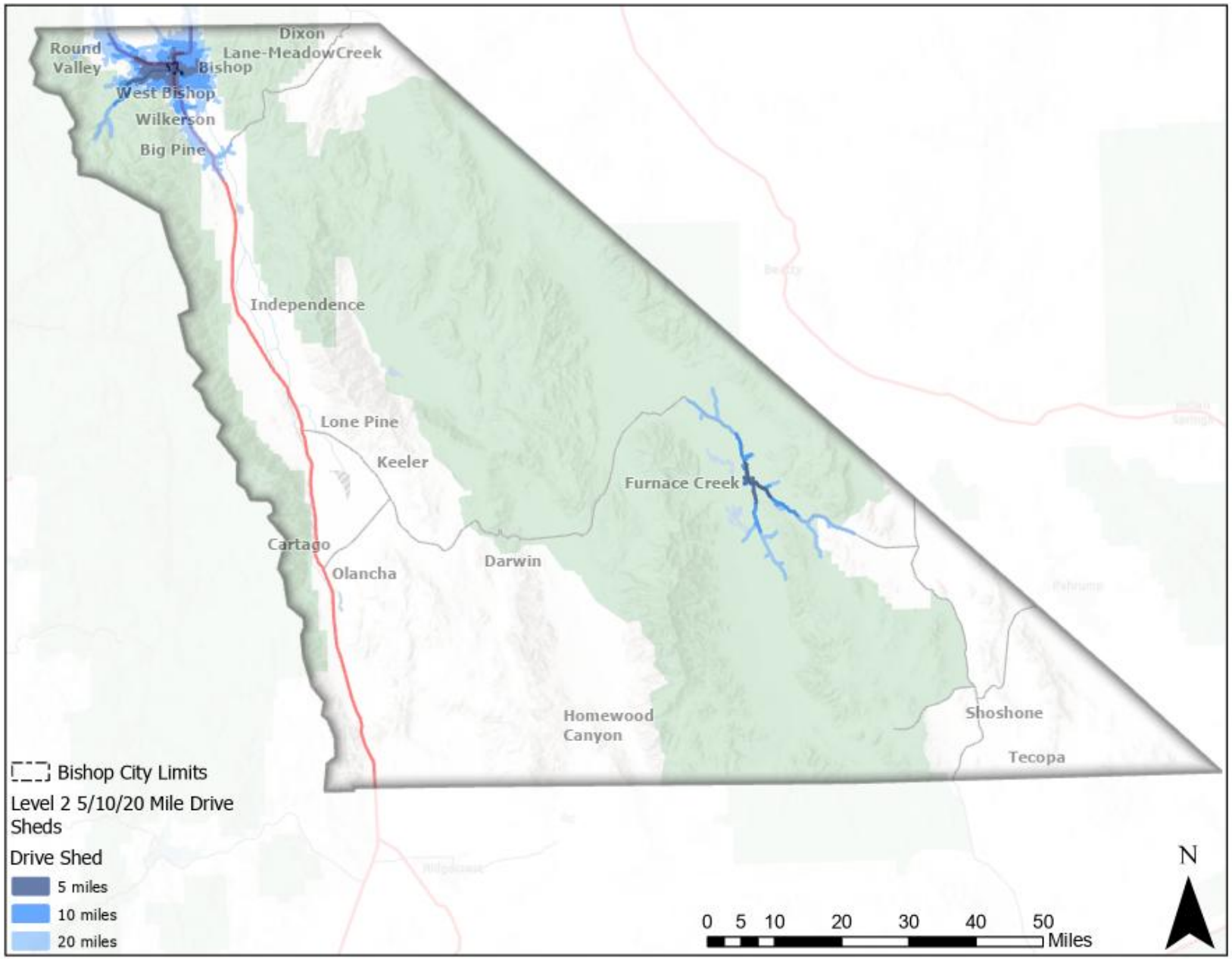


FIGURE 46: LEVEL 2 CHARGER 20-MILE SERVICE AREA

A.4.2 DC FAST CHARGERS

Table 24 and **Figure 47** show the locations of public DC Fast Chargers that are listed in the AFDC database. **Table** 24 is sorted by total number of charging plugs by location (with a maximum of 24 Tesla Superchargers at the Rocking West Drive location in Bishop). The table shows that of the three stations with ten or more total DCFC plus, all are Tesla Supercharger locations.

TABLE 24: EXISTING DC FAST CHARGING PLUGS IN INYO COUNTY

NAME/STREET ADDRESS	CITY	EV NETWORK	YEAR OPENED	DCFC CHADEMO	DCFC CCS	DCFC TESLA	TOTAL PLUGS
Bishop, CA - Rocking West Drive - Tesla Supercharger	Bishop	Tesla Supercharger	2023			24	24
Lone Pine Film History Museum - Tesla Supercharger	Lone Pine	Tesla Supercharger	2015			16	16
Lot 13 - Tesla Supercharger	Bishop	Tesla Supercharger	2020			12	12
787 North Main Street	Bishop	Rivian Adventure Network	2022		6		6
601 US-395	Olancha	Rivian Adventure Network	2023		3		3
491 State Highway 127	Shoshone	Rivian Adventure Network	2024		6		6
Vons 1753 - Bishop, CA	Bishop	Electrify America	2020	1	3		4
Coso Junction Store	Olancha	Electrify America	2020	1	3		4
LADWP - Bishop Telecomm	Bishop	Non-Networked	2020	1	1		1*
Coso Junction Rest Area	Olancha	Non-Networked	2021	1	1		2
CalTrans - Division Creek Safety Roadside Rest Area	Independence	Non-Networked	2021	1	1		2
CalTrans - Bishop	Bishop	Non-Networked	2021	1	1		1*
TOTAL				**6**	**25**	**52**	**81**

Table 25 shows the number of DC Fast Chargers (plugs) by opening year and by charging network. The table shows that most of the existing DC Fast Chargers in Inyo County have been implemented since 2019, with the largest number of chargers opened in 2023. Rivian, a relatively new entrant in the DC Fast Charging landscape, has opened three locations with a total of 15 charge ports (6 in 2022, 3 in 2023, and 6 in 2024).

Figure 48 shows the estimated service area (50-mile driving distance, based on the maximum distance the National Electric Vehicle Infrastructure (NEVI) program prescribes for spacing of DCFC stations, as well as 25-mile for informational purposes) for DC Fast Chargers in Inyo County which covers most of the US 395 corridor, as well as the southeastern portion of the County, however large portions of the County are not within a 50-mile driving distance of a DC Fast Charge port.

TABLE 25: EXISTING DC FAST CHARGERS (PLUGS) IN INYO COUNTY – BY OPENING YEAR

EV NETWORK	2010-2019	2020	2021	2022	2023	2024	TOTAL
TESLA SUPERCHARGER	16	12	-	-	24	-	52
RIVIAN ADVENTURE NETWORK	-	-	-	6	3	6	15
ELECTRIFY AMERICA	-	8	-	-	-	-	8
TESLA DESTINATION	-	-	-	-	-	-	-
BLINK	-	-	-	-	-	-	-
SHELL RECHARGE	-	-	-	-	-	-	-
EVGATEWAY	-	-	-	-	-	-	-
NON-NETWORKED	-	1	5	-	-	-	6
TOTAL COUNTY	**16**	**21**	**5**	**6**	**27**	**6**	**81**

Note: Data through December 1, 2024

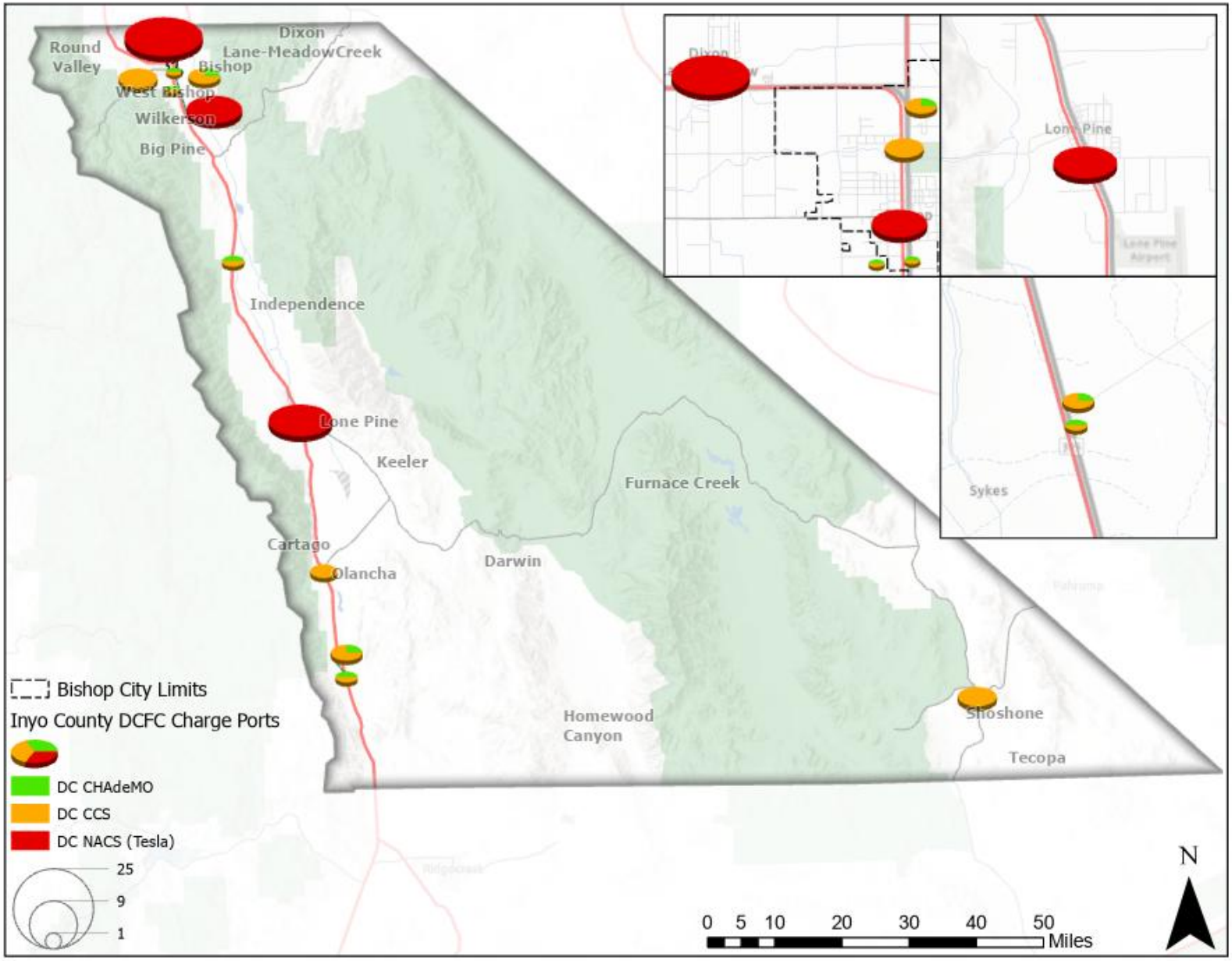


FIGURE 47: DC FAST CHARGER LOCATIONS IN INYO COUNTY

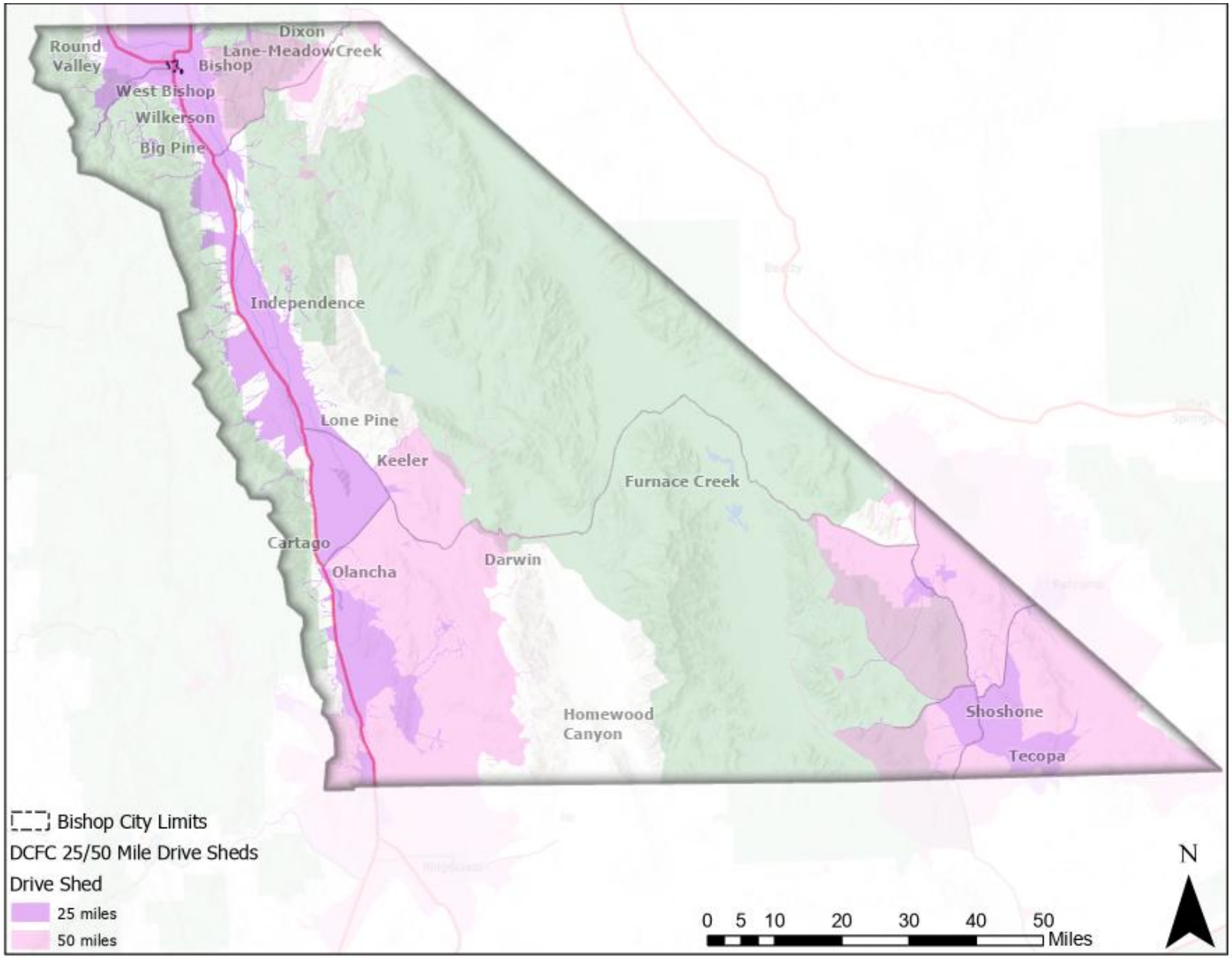


FIGURE 48: DC FAST CHARGER 50 MILE SERVICE AREA

A.5 ENERGY STORAGE IN INYO COUNTY

California is a world leader in energy storage with the largest deployment of batteries that store energy for the electricity grid. Energy storage is an important tool to support grid reliability and complement the state's abundant renewable energy resources. These technologies capture energy generated during non-peak times to be dispatched at the end of the day and into the evening as the sun sets and solar resources go offline, reducing dependence on fossil fuel generation to meet peak loads.

The Public Utilities Code defines an energy storage system as commercially available technology that absorbs energy, stores it for a specified period, and then dispatches the energy. From 2018 to 2024, battery storage capacity in California increased from 500 megawatts (MW) to more than 13,000 MW by late 2024. The state projects 52,000 MW of battery storage will be needed by 2045.

Inyo County, like the state, has seen a steady increase in energy storage in recent years. The California Energy Commission (CEC) maintains an online dashboard[26] that includes mapping and summarizing of energy storage by ZIP code, city, and county. The data (shown in **Figure 49** for the state as a whole and **Figure 50** for Inyo County) shows that Inyo County currently has about 61 MW of storage capacity, representing about 0.5% of the state's total of approximately 13,400 MW of storage. While the average capacity for installations across the state (currently approximately 195,000 installations) is approximately 68 kW, the average capacity for installations in Inyo County (currently 46 installations) is approximately 1,300 kW (much higher than the statewide average). The two figures also show that one of the largest installations in the state is located in Inyo County (thus leading to a much higher average capacity). The largest capacity installation is located at Little Lake, with smaller locations spread elsewhere in the County.

[26] https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-storage-system-survey

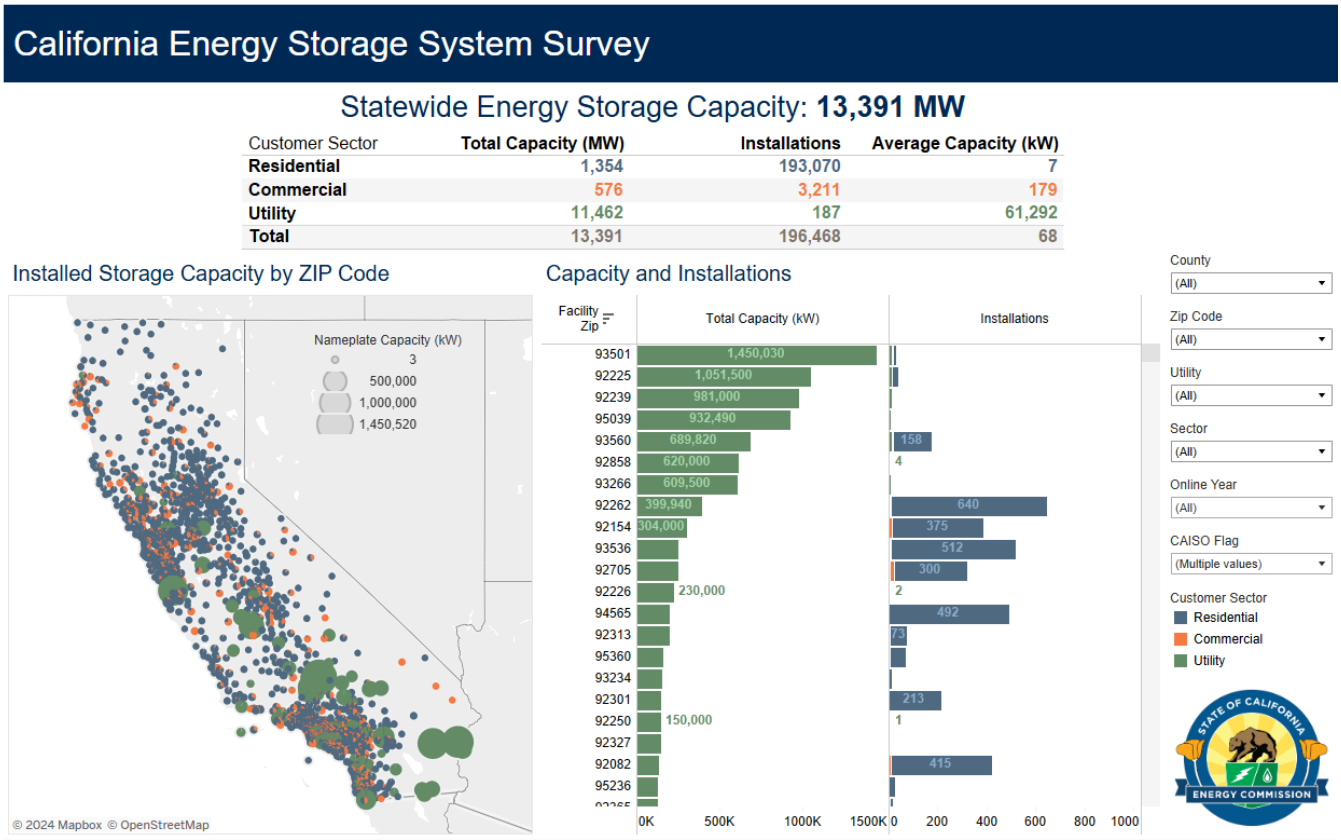


FIGURE 49: STATE OF CALIFORNIA ENERGY STORAGE DATA

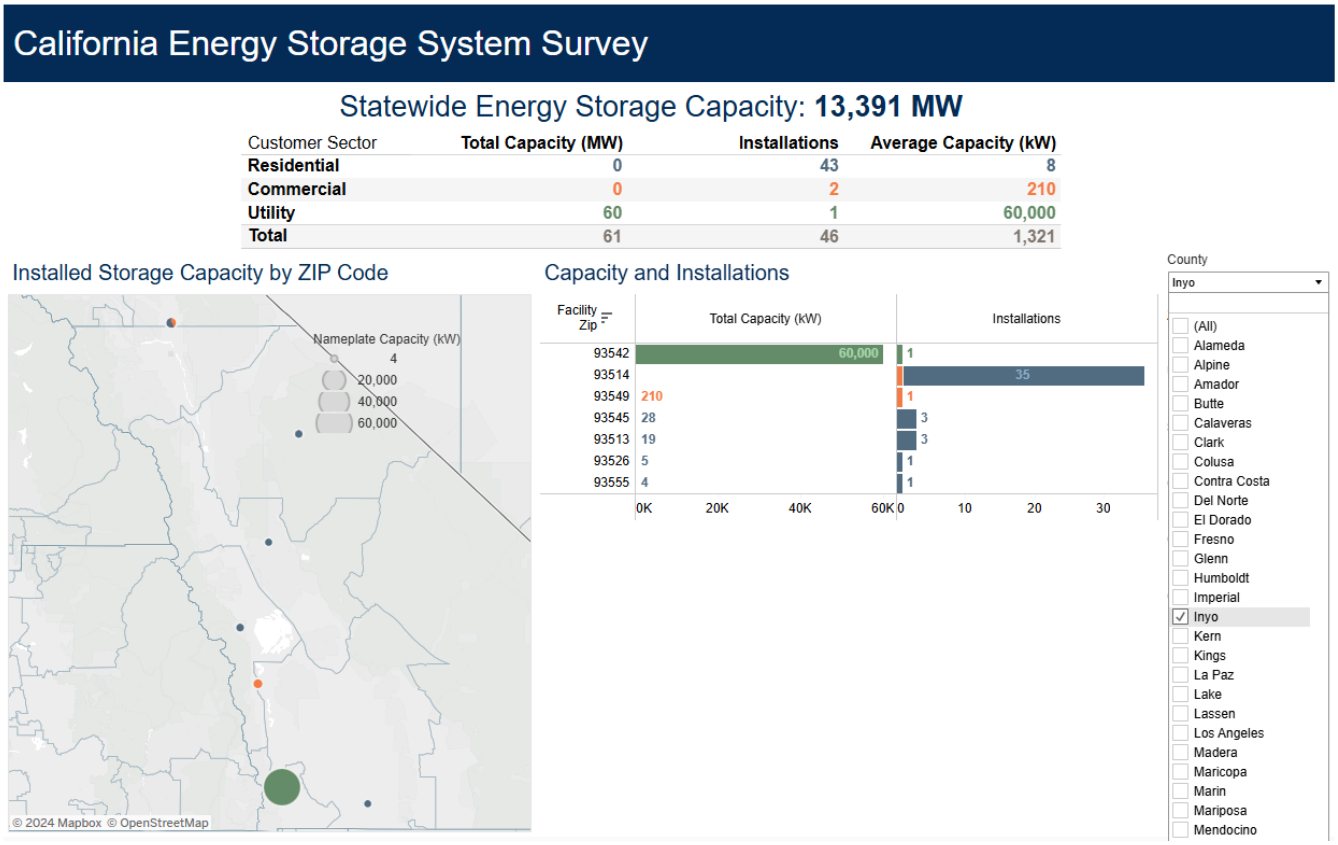


FIGURE 50: INYO COUNTY ENERGY STORAGE DATA

APPENDIX B. DOCUMENTATION OF STAKEHOLDER & PUBLIC ENGAGEMENT

COMMUNITY ENGAGEMENT PLAN

DATE: October 8, 2024

TO: Justine Kokx | Inyo County Public Works

FROM: Kendall Flint | DKS Associates
David Tokarski | DKS Associates
Steffen Coenen | DKS Associates

SUBJECT: Community Engagement Plan
for the EV Charging Infrastructure Network Plan

Project #24738-000

OVERVIEW

Purpose of this Plan

The Inyo County Local Transportation Commission needs a comprehensive and actionable plan outlining planned efforts to engage with the County's local community and other private, public, and non-profit stakeholders to guide the installation of electric vehicle (EV) chargers for use by residents, visitors and County fleet vehicles. Along with serving as a decision support tool and aligning EV charging infrastructure installation plans with community needs and preferences, this plan will position Inyo County to be competitive for current and upcoming funding opportunities.

Both federal and state transportation funding sources are driven by performance-based return-on-investment (ROI) criteria. Funding for multimodal transportation improvements is also influenced by federal and state objectives related to air quality and climate change, environmental justice, and social equity. This makes a proactive, public participation plan that actively engages the communities affected in a meaningful way essential to successful grant applications and future planning efforts.

The goal of this plan is to develop strategies for multi-cultural public engagement that position the County for success through funding opportunities such as grants.

Guiding Principles of Engagement

The Community Engagement Plan is based on the following well-established principles of engagement:

- The belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Promoting sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision-makers.

- Seeking out and facilitating the involvement of those potentially affected by or interested in a decision.
- Providing participants with the information they need to participate in a meaningful way.
- Communicating to participants how their input affected the decision.

Key Messages to Share with the Public and Stakeholders

- The Inyo County Local Transportation Commission is developing a plan to guide the installation of EV chargers for use by residents, visitors and County owned vehicles.
- The County will work collaboratively with the public and the local agencies in the region to identify the best sites for these stations.
- Assisted by its consultant, DKS Associates, the County will be seeking grant funding and partnerships with private companies to support the implementation of this plan.

PLAN APPROACH

The team's efforts will be broken down into two phases. **Phase One** will be used to introduce the community to the planning process and detail all opportunities for engagement planned for the duration of the plan's development. As part of this first phase, community input will be gathered through both traditional (open houses, focused stakeholder meetings, etc.) and non-traditional (online) means to gather input from the public on ideal locations for accessing charging stations.

Phase Two of community outreach will focus on providing the public with a variety of improvement options to address needs identified by the public in the first phase. These recommended improvements can then be refined based on comments received.

Phase One

Our proposed **Phase One** focuses on a thorough review of the existing EV infrastructure in the County and the perceived needs, opportunities and constraints as seen by our project partners and stakeholders.

Development of Stakeholder Database

Though Bishop is the largest City in the County, there are many other communities that need to be represented in our stakeholder database. These include but are not limited to the following:

Big Pine	Keeler	Shoshone
Cartago	Lone Pine	Tecopa
Charleston View	Mesa	Trona
Darwin	Olancha	Valley Wels
Dixon Lane – Meadow Creek	Pearsonville	West Bishop
Independence	Round Valley	Wilkerson

To ensure that Inyo County's substantial Native American population is included, DKS will coordinate (with assistance from Inyo County) with the Mono, Timbisha, and Northern Paiute nations by engaging leaders at the area's reservations.

- Big Pine Reservation
- Bishop Paiute Reservation
- Fort Independence Reservation
- Lone Pine Reservation
- Timbisha Shoshone Reservation

Development of Educational/Informational Materials

Multilingual Collateral Materials

The project team will prepare appropriate collateral materials and outreach tools to engage news media throughout the project. Material will be created in English and Spanish. This will include:

- Creation of four news releases to be distributed by the
  - Initial project kick-off/website launch (October 2024)
  - Promotion of engagement opportunities (November 2024 and March 2025)
  - Final study results (May 2025)
- Creation of nine social media posts to be posted on Facebook, Instagram, Next Door, X (formerly Twitter) and Threads by the Inyo Communications Office, if available.
  - Initial project kick-off/website launch (October 2024)
  - Promotion of engagement opportunities (November 2024 and March 2025)
  - Final study results (May 2025)
- Development of Fact Sheets, FAQs and other materials (October 2024)
  - Materials should be visually engaging and have a reading comprehension level of preferably Flesch-Kincaid Grade Level of 10.0 or less, verified in Word.
  - An Americans with Disabilities Act of 1994 (ADA) accessible electronic copy shall be prepared, including the use of alt-text.
- Development of posters/flyers promoting upcoming meetings and workshops (November 2024 and March 2025)

Website Materials

The County will establish a project webpage on its existing website to post all relevant information about the project. The site will be accessible via a "vanity" URL (i.e. a simple and unique web

address that is custom for this project). Materials, images, and graphics for posting will be provided by the project team. This will include:

- Project overview
- Interactive/virtual workshops
- Surveys
- Library with background documents
- Community calendar for meetings and workshops
- Comment capture/idea wall
- Contact information

Web-Based Engagement Tools

Interactive activities and tools provide easy ways for the public to share concerns, ideas as well as identify opportunities and challenges for each proposed location. Some people are reluctant to attend meetings so the use of interactive web-based tools that essentially bring meetings/engagement opportunities to the public are part of a successful program.

Social Pinpoint is an interactive suite of tools that can be used to facilitate public engagement. This will be incorporated into the project website via a link. The application is multilingual allowing users to select the language of their choice. Ultimately, this input will be analyzed and visualized to present where and what type of concerns the public identifies. Users will be able to view sites of existing EV charging facilities and then drop pins on specific locations to identify ideal locations for future sites and participate in online surveys.

Stakeholder Advisory Committee

The Project Team will coordinate with the County to form an Advisory Committee to provide the foundation for an outcome-based project analysis as well as a solid starting point for developing a unified vision for the study corridors. At a minimum, the Advisory Committee should consist of representatives from:

- **Government Entities**
  - Caltrans
  - Inyo County
  - City of Bishop
  - Fire Protection Districts
  - Eastern Sierra Council of Governments
- **Private Organizations**
  - Electric Drive Transportation Association
  - PlugIn America
  - Veloz
  - Building Industry Association
  - Charging Networks (Tesla, America, EVGo etc.)
  - Top Regional Employers

- **Other Non-Governmental Organizations**
  - School Districts
  - Great Basin Unified Air Quality Management District
  - National Parks
  - Utility Providers (LADWP/DWP)
  - High Sierra Energy Foundation

These meetings will be held virtually to maximize participation. We anticipate holding three meetings over the course of the project.

Virtual Community Workshop (November 2024)

The project team will plan, promote, and facilitate two Community Workshops. The first Community Workshop will be held virtually and will include:

- Overview of existing charging infrastructure.
- Assumptions on future needs for residents, businesses, and visitors to the area.
- Interactive activities.
- Questions and answers.

Promotion methods will include:

- Pre-meeting promotion that clearly explains the intent, topics, and format of the event.
- Social media posts.
- Flyers.

Meeting summaries including meeting materials, presentations, and feedback received will be posted on the project website.

Phase Two

Phase Two of our outreach effort will vet potential improvements and investments to address needs identified by the Phase One outreach effort.

Whereas the first phase of community engagement will be used to introduce the community to the planning process and solicit input regarding existing condition issues and deficiencies, the second phase of community outreach will focus on providing the public with a variety of improvement concepts for their review and comments.

Live Community Workshop (March 2025)

The second Community Workshop will be held in-person (or hybrid) and will include:

- Live visioning presentation and click polling to gather community input.
- Small group discussions with large aerial table maps/renderings of proposed EV charging locations for use by residents, visitors and County owned vehicles in which participants identify problems and possible solutions.
- Survey questions.

Promotion methods will include:

- Pre-meeting promotion that clearly explains the intent, topics, and format of the event.
- Social media posts.
- Flyers.

Meeting summaries including meeting materials, presentations, and feedback received will be posted on the project website.

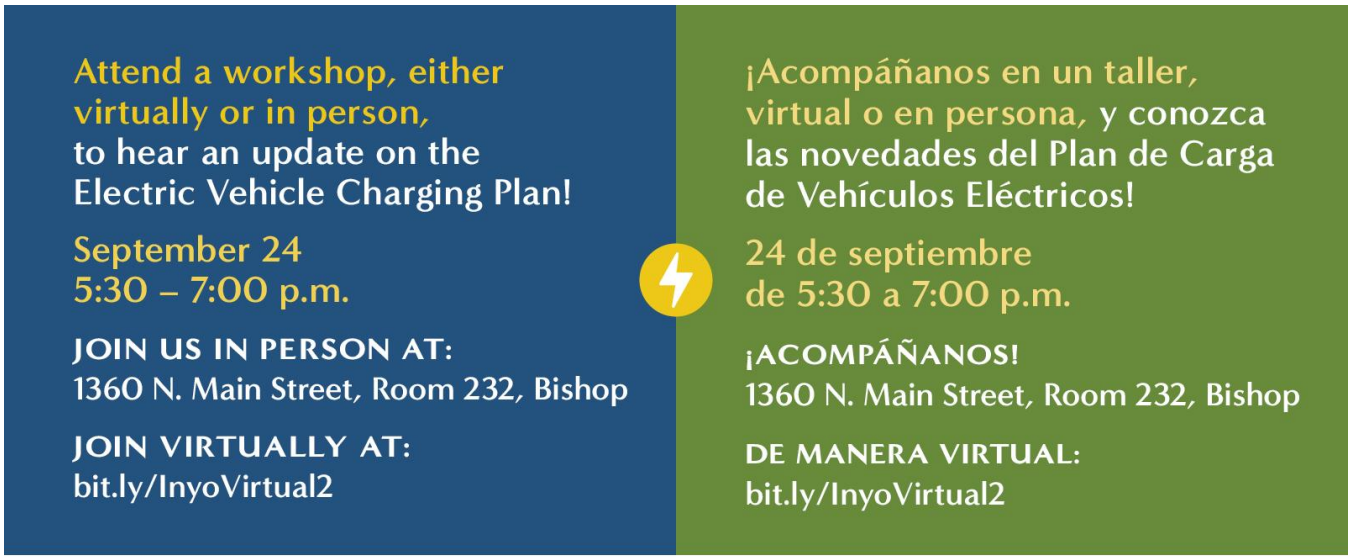
ENGAGEMENT SUMMARY REPORT

The project team will prepare a summary of outreach efforts and evaluate the success of the campaign by detailing:

- All materials prepared for the outreach program.
- All events/opportunities conducted/offered.
- Number of participants for each activity.
- Diversity of participants to ensure inclusion based on socio-economic indicators.
- Summary of comments and concerns.
- Overall outcomes of the engagement efforts and how feedback impacted project outcomes and Board of Directors action, if applicable.

Inyo County EV Charging Plan

TO LEARN MORE, VISIT:
PARA APRENDER MÁS, VISITE:
dks-engage.com/inyo-evplan



Inyo County EV Charging Plan

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Inyo County EV Charging Plan

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Inyo County
EV Charging Plan

English

Inyo County EV Plan

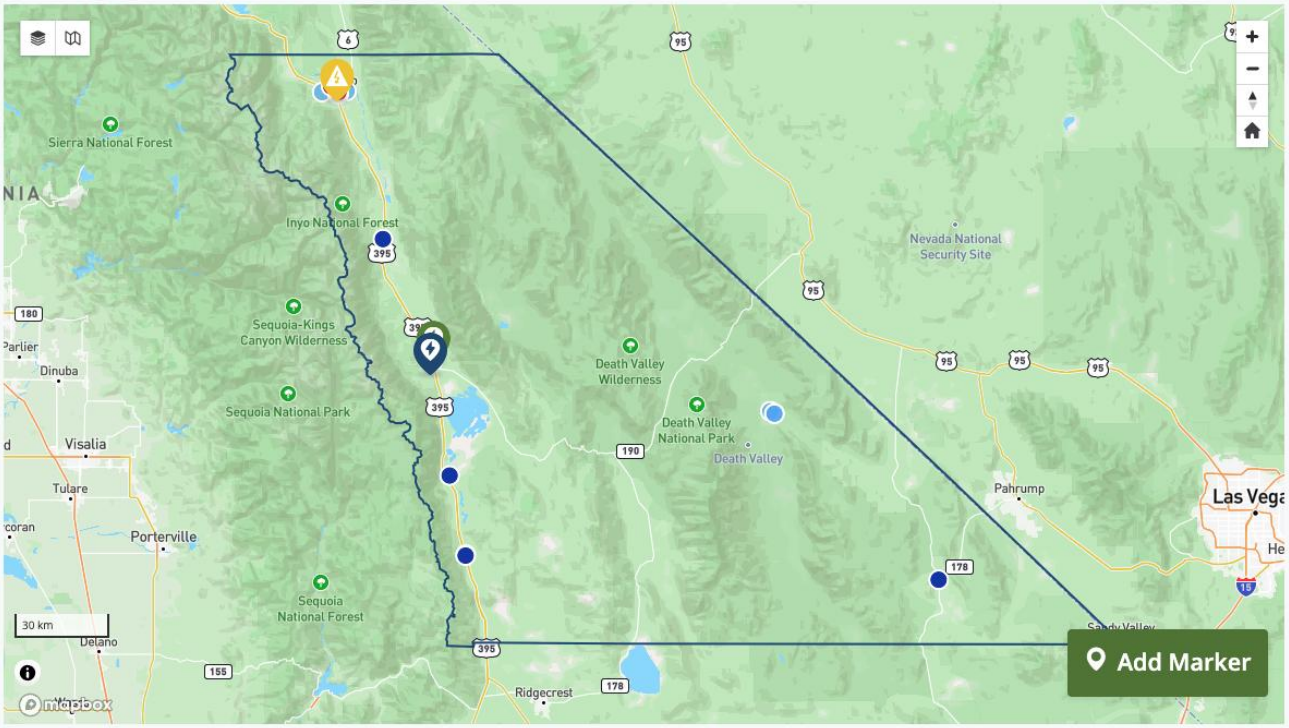
The Inyo County Electric Vehicle (EV) Charging Infrastructure Plan that will identify EV charging facilities that contribute to the state and nationwide charging network.

Open

Provide Your Input on EV Charging Locations

3 contributions so far

Enter an address



Inyo County EV Charging Plan

VISIT / VISITE:
dks-engage.com/inyo-evplan

SOCIAL MAP COMMENTS

Comment	Address	Latitude	Longitude
Six (6) public EVSE Level 2 EV Connect installed 2025 by SCE in partnership with Bishop Paiute Tribe at Indian Education Center Parking Lot at 390 N. Barlow Lane. Funded by Charge Ready Schools Project	390 North Barlow Lane, Bishop, California 93514, United States	37.36724996	-118.422586
Nice to go to the museum while charging your car	Onion Valley Road, Independence, California 93526, United States	36.80119064	-118.203546
Combination of DC fast chargers and Level 2. About 45 minutes from other chargers	40440 California Highway 190, Darwin, California 92328, United States	36.33959903	-117.468148
Large travel center is being built and EV chargers would be a logical addition for long distance travelers. There will be multiple bathrooms available 24/7 at the new travel center.	125 Grand Army of the Republic Highway, Independence, California 93513, United States	36.83974774	-118.231245
This is an important transit location, and an interesting place in and of itself. A charge station would be very welcome here.	State Line Road, Tecopa, California 92328, United States	36.30249097	-116.410928
This remote area of the county would be well served by having good charge infrastructure. It would likely encourage more visitors as well.	290 Old Spanish Trail Highway, Tecopa, California 92389, United States	35.85142203	-116.23326
A charge station in Independence would be great for people who have business in town. Plus as the county seat, Independence really should have excellent services.	155 East Market Street, Independence, California 93526, United States	36.80292581	-118.199467
A Level 3 charge station here would be very useful for people who are heading up Big Pine Creek or, moreso, those who are heading to destinations east (White Mountains, Inyo Mountains, Eureka Valley, Fish Lake Valley).	360 Grand Army of the Republic Highway, Big Pine, California 93513, United States	37.16389843	-118.289292
This is an obvious place for a Level 3 charge station. There already are a few Level 2 chargers and often lines for them during the busy season.	Furnace Creek Boulevard, Death Valley, California 92328, United States	36.45672425	-116.865641
This would be a very useful location for an EV charge station both for visitors to the park and for those transiting through. There is already a gas station at Stovepipe Wells and the NPS has proposed adding diesel, so there's precedent. Additional solar could be installed to provide some or all of the power, similar to Furnace Creek. Level 2 charging would be fine, but Level	51880 California Highway 190, Death Valley, California 92328, United States	36.60697737	-117.14527

Comment	Address	Latitude	Longitude
3 would provide the best level of service into the future.			
Add more level 3 chargers in Lone Pine. On holiday weekends, the Tesla charging station gets filled up and there can be a line backing up to 395. Add CCS/CHAdeMO level 3s as well. Lone Pine is a jumping off spot to Death Valley, Ash Meadows, Shoshone, as well as heading north or south on 395.	111 West Mountain View Street, Lone Pine, California 93545, United States	36.605611	-118.063355
Level 3 chargers are needed in either Death Valley Junction, Shoshone, or Tecopa. Shoshone has Level 3 Rivian Chargers and a few Level 2s that might be J1772s, but a Tesla level 2 or level 3 there would be great.	State Line Road, Death Valley, California 92328, United States	36.302063	-116.414375
No brainer—where SoCal and Las Vegas meet. Definite need. Must be self-sufficiently solar powered by independent ground mount installs.	Death Valley, California 92328, United States	36.27047891	-116.406842
Tecopa and/or Shoshone. Main tourist market for Tecopa is Las Vegas, then Los Angeles, but I have yet to see an EV in either spot. If independent, on-site solar panels can power the EV stations...sounds good. No industrial solar parks on Inyo County, California public lands. No 160/Old Spanish Trail solar travesties.	Tecopa, California 92389, United States	35.81455104	-116.22591
A couple of EV charging stations would be helpful in Trona, perhaps at the rest area? Not everyone from SoCal headed to DVNP stops in Ridgecrest, especially coming up from SR-14 to Garlock to Searles Station Cutoff or Trona Road. Nobody trusts 100% electric out here.	Pipeline Road, Trona, California 93562, United States	35.77014207	-117.352582
A no brainer. Can separate on-ground solar panel installations meliorate lack of utility providers?	Death Valley, California 92328, United States	36.42743827	-116.861315
For years I've watched Teslas charging at the RV Park. Stovepipe needs charging for Teslas, Rivians, Fisker, etc. I'm not EV driver because I don't want to be stuck in Hiko without charge. Can't solar panels installed at Stovepipe pick up what SCE can't provide?	Mosaic Canyon Road, Death Valley, California 92328, United States	36.58066923	-117.137561

Comment	Address	Latitude	Longitude
Place out of town.	El Camino Sierra, Bishop, California 93514, United States	37.31028684	-118.382707
EV charging at Millpond - There are bathrooms there, places for people to walk around while charging their cars.	Abelor Road, Bishop, California 93514, United States	37.3799512	-118.495844
long way from anywhere, plus would support local business	40440 California Highway 190, Darwin, California 92328, United States	36.3393746	-117.467444
needed	California Highway 190, Death Valley, California 93549, United States	36.45746861	-116.865112
charge while learning some history	5001 Grand Army of the Republic Highway, Lone Pine, California 93545, United States	36.72801606	-118.147582
Charging station to be added. J772 is the one that seems lacking and would like to see more of them because it is more universal charger for most electric cars.	688 North Main Street, Bishop, California 93514, United States	37.36712078	-118.394918
Charging station to be added. J772 is the one that seems lacking and would like to see more of them because it is more universal charger for most electric cars.	430 Grand Army of the Republic Highway, Big Pine, California 93513, United States	37.16230029	-118.289169
Charging station to be added. J772 is the one that seems lacking and would like to see more of them because it is more universal charger for most electric cars.	555 South Clay Street, Independence, California 93526, United States	36.79819787	-118.195495
J772 is the one that seems lacking and would like to see more of them because it is more universal charger for most electric cars.	481 West Gene Autry Lane, Lone Pine, California 93545, United States	36.6010048	-118.063477
There has been times where Rivian trucks are pulling trailers. They pull in to charge and block main drive through areas in the parking lot. If unseen when pulling into El Pollo Loco it is hard to turn around in the small area to get out.	783 North Main Street, Bishop, California 93514, United States	37.36896347	-118.396028
Public EV charging near a communal spot area like the park or dog park would be a great place to take a break and charge the car. Lot's of shaded spots which is a benefit, specifically in this area. Paid chargers or free time-limited charges for example.	506 Park Avenue, Bishop, California 93514, United States	37.36749906	-118.390701

Comment	Address	Latitude	Longitude
There are currently 4 Electrify America chargers by the gas station, but there should be more as these quickly fill up during busy travel times. I drove to/from LA from Mammoth this weekend and this was a necessary stop for me, we need more chargers here.	Grand Army of the Republic Highway, Little Lake, California 93549, United States	36.04496957	-117.945475
Agree with Peggy, we should have fast chargers available to all in Lone Pine.	110 Burkhart Road, Lone Pine, California 93545, United States	36.59694164	-118.059168
Add public charging at County Parks - Spainhower Park	401 North Main Street, Lone Pine, California 93545, United States	36.60811265	-118.064873
Add public charging at County parks - Diaz Lake	Grand Army of the Republic Highway, Lone Pine, California 93545, United States	36.56564877	-118.053224
Charging while grocery shopping would be great.	196 Meadow Lane, Bishop, California 93514, United States	37.36089356	-118.436553
Charging while grocery shopping would be great.	1320 North Main Street, Bishop, California 93514, United States	37.37625968	-118.394769
Charging while grocery shopping would be great.	1196 North Main Street, Bishop, California 93514, United States	37.37349779	-118.393406
Parking adjacent to several businesses, restaurants, movie theater, etc that it would be great to have charging next to while visiting.	296 North Warren Street, Bishop, California 93514, United States	37.36291266	-118.396011
Test	100 Warm Springs Road, Bishop, California 93514, United States	37.32086938	-118.386968
1.7 million people visit Death Valley National Park. Visitation is increasing, and an increasing percentage have EVs. There are a small number of slow chargers at The Oasis at Death Valley. More chargers, faster chargers, and chargers at Furnace Creek Visitor Center would be very popular. However, I don't think Southern California Edison's power grid here can support rapid chargers.	A/B, Death Valley, California 92328, United States	36.45740573	-116.863222
1.7 million people visit Death Valley National Park. There are a small number of slow chargers at Furnace Creek and Stovepipe Wells, but rapid chargers would better meet the demand, which is only increasing. However, I	California Highway 190, Stovepipe Wells, California 93549, United States	36.60747012	-117.139493

Comment	Address	Latitude	Longitude
don't think Southern California Edison's power grid here can support rapid chargers.			
Trona is not as heavily trafficked but would benefit a station.	Bri-Mar Road, Trona, California 92328, United States	35.79939205	-117.35338
Another remote location that would benefit having an EV station.	Tecopa Hot Springs Road, Tecopa, California 92389, United States	35.8501958	-116.225881
At a heavily traffic section far from other charging areas.	608 California Highway 127, Death Valley, California 92328, United States	36.30218898	-116.41459
At the junction of the Death Valley Road, heavy traffic area.	California Highway 136, Keeler, California 93545, United States	36.43049202	-117.82364
Low use parking lot. Open area to the south of paved area.	550 South Clay Street, Independence, California 93526, United States	36.79856288	-118.194096
This spot is the middle point between Los Angeles and Mammoth.	7124 Enchanted Lake Road, Olancha, California 93549, United States	36.18482366	-117.977636
Test	3361 West Line Street, Bishop, California 93514, United States	37.36248299	-118.439817
I meant Level 3 (fast) chargers for non-Tesla vehicles	Los Angeles Aqueduct Road, Lone Pine, California 93545, United States	36.56393917	-118.071174
This site only has Tesla chargers. We need some that are compatible with other EVS such as Hyundai and Rivian. Lone Pine is an important junction between LA and Mammoth and is situated at an exit point from Death Valley.	760 South Main Street, Lone Pine, California 93545, United States	36.59790665	-118.060024
Lack of restrooms at the current charging stations. Please plan for restrooms with 24 hour access wherever a station is placed.	137 Bishop Golf Course Rd, Bishop, California 93514, United States	37.33904823	-118.401769

Inyo County EV Charging Plan

What is the Inyo County Electric Vehicle Charging Plan?

Inyo County and the Inyo County Local Transportation Commission are developing a plan to determine the best potential sites for building charging stations for electric vehicles (EVs). This will include a review of where charging stations currently exist throughout the County and where stations are currently planned (if known). The Plan will provide detailed implementation guidance for installing these and other strategically-located stations throughout Inyo County to support the travel needs of residents of the County as well as EV drivers who travel to destinations within the County or may pass through the County and need charging infrastructure while passing through. Some of the recommended stations will also serve vehicles owned by the county and local municipal agencies. A key element of the plan is to enable collaboration between the community and local agencies to identify not only where stations should go, but also the type of chargers needed. Lastly, the Plan will provide the County with the necessary information to guide its own vehicle fleet's transition to zero-emission vehicles (ZEVs) and to support the charging/refueling needs at County-owned facilities.

Who is leading this project?

Plan development is being led by Inyo County (in particular the Inyo County Local Transportation Commission). Analysis, technical recommendations, as well as concerted stakeholder and public engagement are provided by DKS Associates, an employee-owned transportation engineering and planning firm with extensive expertise in transportation electrification.

Why is this plan needed?

Inyo County does not currently have a large inventory of sites for residents and visitors to charge electric vehicles. Additionally, the County is in need of charging infrastructure to support the future transition of its fleet to zero-emission vehicles. As more motorists throughout California switch to EVs, it is important for the County to provide easily accessible and effective charging stations to support their needs. In particular, it is important for all regions of California to foster implementation of EV charging infrastructure.

How is the project funded and what is the budget?

Inyo County received a Caltrans Sustainable Transportation Planning Grant to develop the Electric Vehicle Charging Plan and overall project budget is $200,000. By helping mitigate transportation-related greenhouse gas and local air pollutant emissions, benefits to Inyo County residents and visitors are expected to far outstrip the costs of this planning project.

How can I participate?

Suggest locations for charging stations throughout the County in our online interactive map:

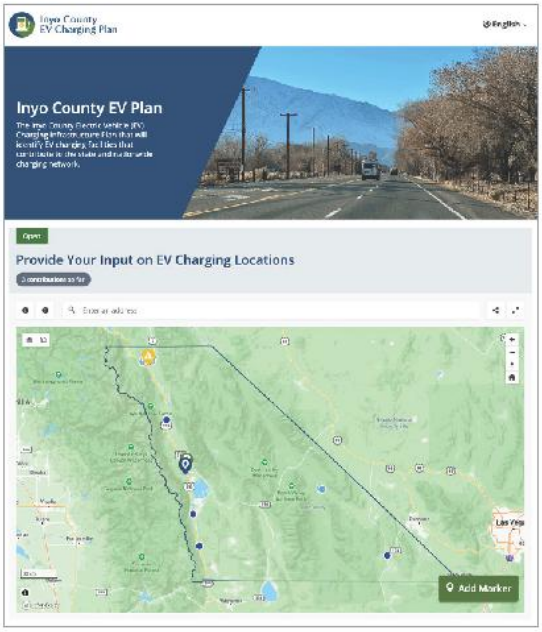
dks-engage.com/inyo-evplan

Your feedback is vital to developing an informed and successful plan. Let us know:

- Where should charging stations be installed?
- What type of chargers do you need?
- How often do you need to charge?

What is the timeline for the project?

Planning efforts kicked off in July 2024 and will continue through late summer 2025. There will be several opportunities to participate in a series of upcoming community workshops. We invite you to attend, learn about the plan, and share your input!



For other questions about the plan, reach out to Elise Brockett, Community Outreach Specialist, at elise.brockett@dksassociates.com or at (279) 225-5253 ext. 420.

Inyo County EV Charging Plan

TO LEARN MORE, VISIT: dks-engage.com/inyo-evplan

Hoja informativa sobre el plan de carga de vehículos eléctricos del condado de Inyo

¿Qué es el Plan de carga de vehículos eléctricos del condado de Inyo?

El condado de Inyo y la Comisión de Transporte Local del condado de Inyo están desarrollando un plan para determinar los mejores sitios para construir estaciones de carga para vehículos eléctricos (EV). Esto incluirá una revisión de dónde existen actualmente estaciones de carga en todo el condado y dónde hay estaciones planificadas actualmente (si se conocen). El Plan proporcionará una guía de implementación detallada para instalar estas y otras estaciones ubicadas estratégicamente en todo el condado de Inyo para satisfacer las necesidades de los residentes del condado, así como de los conductores de vehículos eléctricos que viajan a destinos dentro del condado o que pueden pasar por el condado y necesitan cargarse. Algunas de las estaciones recomendadas también darán servicio a vehículos propiedad del condado y de agencias municipales locales. Un elemento clave del plan es permitir la colaboración entre la comunidad y las agencias locales para identificar no solo dónde deben ir las estaciones, sino también el tipo de cargadores necesarios. Por último, el Plan proporcionará al Condado la información necesaria para guiar la transición de su propia flota de vehículos a vehículos de cero emisiones (ZEV) y para respaldar las necesidades de carga/reabastecimiento de combustible en las instalaciones propiedad del Condado.

¿Quién lidera este proyecto?

El desarrollo del plan está a cargo del condado de Inyo (en particular, la Comisión de Transporte Local del condado de Inyo). DKS Associates, una empresa de planificación e ingeniería de transporte (empresa propiedad de sus empleados) con amplia experiencia en electrificación del transporte proporcionara análisis, recomendaciones técnicas, así como la participación concertada de las partes interesadas y del público.

¿Por qué se necesita este plan?

El condado de Inyo actualmente no cuenta con un gran inventario de sitios para que los residentes y visitantes carguen vehículos eléctricos. Además, el condado necesita infraestructura de carga para respaldar la futura transición de su flota a vehículos de cero emisiones. A medida que más conductores en California cambian a vehículos eléctricos, es importante que el condado proporcione estaciones de carga efectiva y de fácil acceso para satisfacer sus necesidades. En particular, es importante que todas las regiones de California fomenten la implementación de infraestructura de carga de vehículos eléctricos.

¿Cómo se financia el proyecto y cuál es el presupuesto?

El condado de Inyo recibió una subvención de planificación de transporte sostenible de Caltrans para desarrollar el plan de carga de vehículos eléctricos. El presupuesto general del proyecto es de $200,000. Al ayudar a mitigar los gases de efecto invernadero relacionados con el transporte y las emisiones de contaminantes atmosféricos locales, se espera que los beneficios para los residentes y visitantes del condado de Inyo superen con creces los costos de este proyecto de planificación.

¿Cómo puedo participar?

Puede sugerir ubicaciones para estaciones de carga en todo el condado en nuestro mapa interactivo en línea:

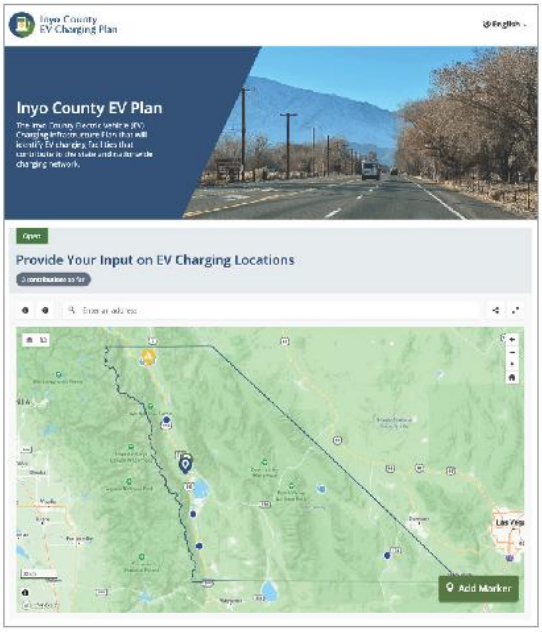
dks-engage.com/inyo-evplan

Sus comentarios son vitales para desarrollar un plan informado y exitoso. Háganos saber:

- ¿Dónde deberían instalarse las estaciones de carga?
- ¿Qué tipo de cargadores necesitas?
- ¿Con qué frecuencia necesitas cargar?

¿Cuál es el cronograma del proyecto?

Los esfuerzos de planificación comenzaron en julio de 2024 y continuarán hasta finales del verano de 2025. Habrá varias oportunidades para participar en una serie de talleres comunitarios. ¡Lo invitamos a asistir, conocer el plan y compartir sus comentarios!



Si tiene otras preguntas sobre el plan, comuníquese con Elise Brockett, especialista en alcance al público, en elise.brockett@dksassociates.com o al 279-225-5253 ext 420.

Inyo County EV Charging Plan

PARA APRENDER MÁS, VISITE: dks-engage.com/inyo-evplan

APPENDIX C. CHARGER NEEDS ANALYSIS: DOCUMENTATION OF SCORING METRICS

The EV charger siting analysis relies on multiple datasets to evaluate charging needs and opportunities across census tracts. **Table 26** summarizes the data fields used, including definitions, sources, and any processing steps required to generate metrics. These inputs provide a consistent basis for comparing tract characteristics and identifying suitable locations for public EV charging infrastructure in Inyo County.

TABLE 26: SITING ANALYSIS DATA FIELDS AND DEFINITIONS

DATA FIELD	DEFINITION	DATA SOURCE	PROCESSING REQUIRED
EXISTING PUBLIC LEVEL 2 CHARGING ACCESS	Buffer-based accessibility measure of existing public Level 2 chargers	AFDC	Smallest circular buffer around population-weighted center of each tract to reach 20+ existing charging ports
EXISTING PUBLIC DCFC ACCESS	Buffer-based accessibility measure of existing public DC fast chargers	AFDC	Same as above
LOCAL EV ADOPTION	Share of registered light-duty EVs	CEC (ZIP code level)	Assign ZIP-level percentages to census tracts
BEV TRIP ACTIVITY	Share of BEV trips of all trips intersecting with census tract	Replica	Calculate % of BEV trips of all trips
CA CLIMATE INVESTMENTS PRIORITY POPULATIONS	Tracts identified as priority populations (CalEnviroScreen, low-income, Tribal lands)	CCI Mapping Tool	1 point each for each of the following: • CalEnviroScreen (CES) • Low-income community (LIC) • Tribal land
CALENVIROSCREEN	Composite environmental burden and population vulnerability score	CalEnviroScreen 4.0	None
LONG COMMUTE ACTIVITY AT HOME LOCATIONS	Percent of workers living in tract with 100+ mile commutes	Replica	None
LONG COMMUTE ACTIVITY AT WORK LOCATIONS	Percent of jobs in tract for which workers have 100+ mile commutes	Replica	None
COMMUTE TRIP ACTIVITY	Percentage of trips in tract that are commutes	Replica	None
WORK-BASED TRIP ACTIVITY	Percentage of trips in tract that are work-based	Replica	None
LONG-DISTANCE TRIP ACTIVITY	Percentage of trips in tract that are long distance (100+ miles)	Replica	None
TNC/TAXI ACTIVITY	Percentage of trips in tract that are TNC/taxi trips	Replica	None
SHARE OF LONG DWELL TIMES AT WORK	Percentage of dwell periods at work locations in tract that last 4 or more hours	Replica	None
SHARE OF SHORT DWELL TIMES	Percentage of dwell periods in tract that last up to 1 hour	Replica	None

DATA FIELD	DEFINITION	DATA SOURCE	PROCESSING REQUIRED
MULTI-UNIT DWELLING PREVALENCE	Number of households in 5+ unit structure per square mile	U.S. Census / ACS	None
SHARE OF RENTER HOUSEHOLDS	Percent of housing units that are renter-occupied	U.S. Census / ACS	None
TRANSIT ACCESS	Number of daily transit arrivals across all transit stops in each census tract	CA Transit Stops	None
PUBLIC LAND OWNERSHIP	% of tract land with public ownership (by block)	CAL FIRE / USGS	None

APPENDIX D. POTENTIAL EV CHARGER SITES: INFORMATION SHEETS

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Millpond County Park	220 Sawmill Rd, Bishop	**Public Destination Charging (Level 2)**	• Common recreational destination for County residents & visitors • 3 surface parking lots • County-owned site	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this park for local and visiting EV drivers

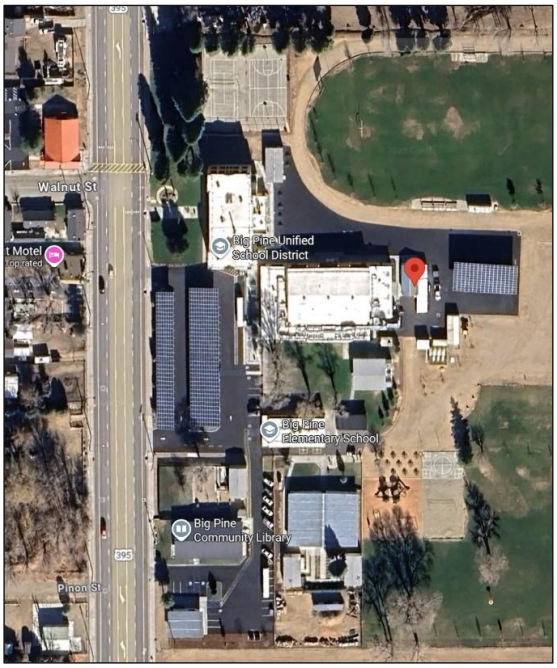
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Bishop Airport	703 Airport Road, Bishop	**Public Destination Charging (Level 2)**	• Regional airport with daily and weekly commuters • Multiple surface parking lots • Potential opportunities for synergies between public charging and Eastern Sierra Transit Authority & Inyo County fleet vehicles	Deploy **5-10 low-speed Level 2 charging ports** (3.6-6.6 kW) where airport travelers park their vehicles for one or more days. Alternatively, install smart Level 1 charging outlets that support electricity usage tracking and payment processing.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Parking Lot near Bishop City Hall	199 N Warren/ 220 N Fowler, Bishop	**Public Destination Charging (Level 2)**	• Central to downtown business district • Adjacent to City Hall and its associated services • Approximately 110 parking spaces • Within walking distance of multiple apartment buildings, including 262 Academy • Publicly-owned property	Deploy **5-10 Level 2 charging** ports to increase attractiveness of this parking facility for local apartment residents and visiting EV drivers

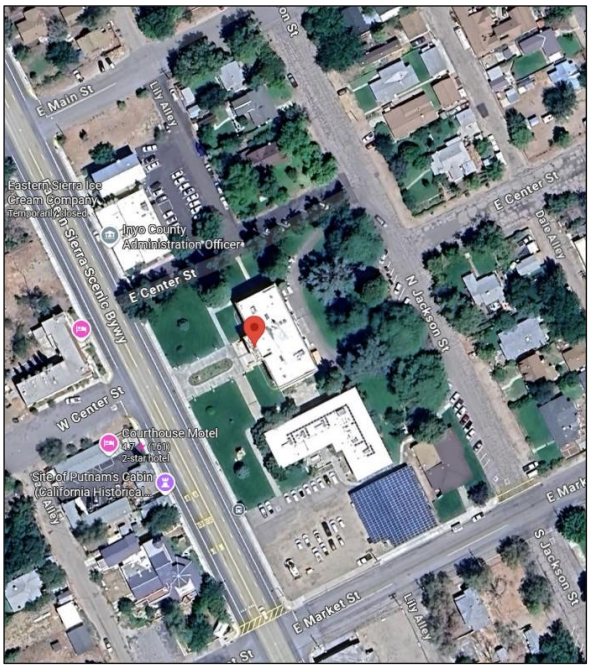
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Surface Parking Lots in Bishop	various	**Public Destination Charging (Level 2)**	• Multiple surface parking lots in central Bishop, particularly along Eastern Sierra Scenic Byway (US-395) • Examples: • Full-service restaurants (various addresses) • Bishop City Hall (377 W Line St) • The Title Building (873 N Main St) • 918 N Main St • Kern Regional Center (187 W Pine St)	Deploy **40-60 Level 2 charging ports** across the listed sites to support local retain, dining, and other activities.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Bishop Union High School	301 N Fowler, Bishop	**Public Destination Charging (Level 2)**	• Central to downtown business district • Large parking lot with close to 100 parking spaces • Regularly used facility by students, staff, and community for sporting events, etc. • Publicly-owned property	Deploy **5-10 Level 2** charging ports to increase attractiveness EVs for students, faculty, and other facility visitors.

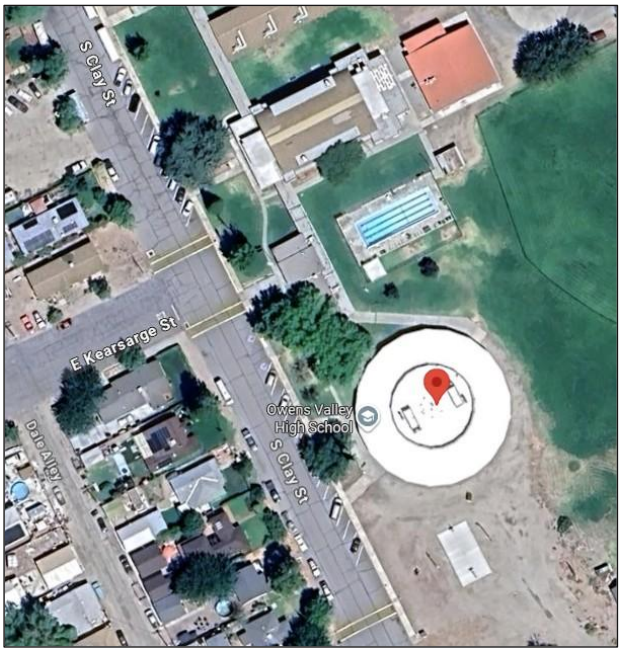
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Big Pine High & Elementary Schools	500 S Main St, Big Pine	**Public Destination Charging (Level 2)**	• Teachers, students, staff, and visitors driving to schools typically dwell there for multiple hours • Front of school has suitable parking lot with solar canopy • Adjacent to school district offices, elementary and high school, and community library	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to provide daytime charging access for teachers, students, staff, and visitors of both schools



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Inyo County Adminis-trative Complex	168 N Edwards St, Independence	**Public Destination Charging (Level 2)**	• Suitable for EV drivers presenting at the courthouse • Surface parking available • Publicly-owned property	Deploy **5-10 Level 2** charging ports.

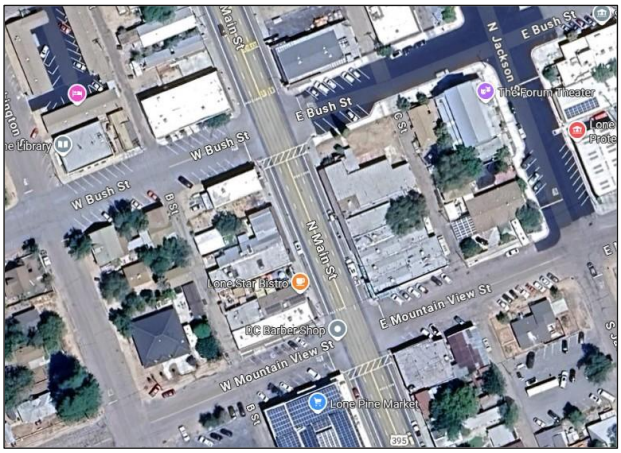


Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Owens Valley High School	202 S Clay St, Independence	**Public Destination Charging (Level 2)**	• Teachers, students, staff, and visitors driving to school typically dwell there for multiple hours • Limited surface parking lot • Chargers would likely have to be at on-street parking	Deploy **2-4 Level 2 charging ports** to increase attractiveness EVs for students, faculty, and other facility visitors.

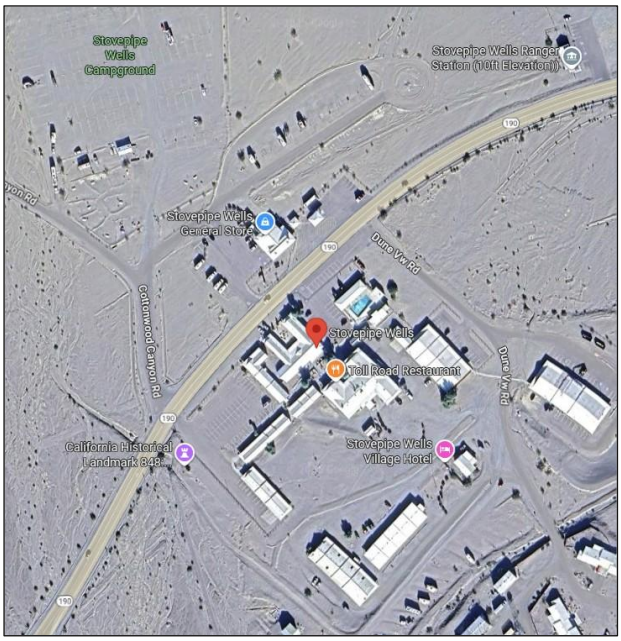


Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Southern Inyo Hospital	501 E Locust St, Lone Pine	**Public Destination Charging (Level 2)**	• Hospital with various surface parking options available	Deploy **5-10 Level 2 charging ports**. Parking stalls best suited for charger installations should be selected based on proximity to existing electrical service/panels. May also serve as workplace chargers.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Street parking in Down-town Lone Pine	W & E Mountain View St, Lone Pine	**Public Destination Charging (Level 2)**	• Multiple rows of angled parking stalls along W & E Mountain View St in downtown Lone Pine, in immediate proximity to multiple destinations, including: • 5+ full-service restaurants • Inyo County Chamber of Commerce • Retail	Deploy **5-10 Level 2 charging ports**. Medium-to high-output (9.6-19.2 kW) is recommended due to dwell time of visiting EV drivers likely being less than 4 hours.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Stovepipe Wells	Along SR-190	**Public Destination Charging (Level 2)**	• Options for charger installations: • Stovepipe Wells Village Hotel • Stovepipe Wells Campground • Toll Road Restaurant • Stovepipe Wells General Store	Deploy **5-10 Level 2 charging ports**, ideally distributed between the hotel and campground for overnight stays. Depending on electrical capacity, can also consider smart Level 1 charging outlets that allow for payment processing.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Furnace Creek	Along SR-190	**Public Destination Charging (Level 2)**	• Options for charger installations: • Sunset Campground • The Oasis at Death Valley (hotel) • The Ranch at Death Valley (hotel) • Furnace Creek Ranch Golf Course	Deploy **10-20 Level 2 charging ports** across the various listed sites. For the campground and hotels, low-speed Level 2 (3.6-6.6 kW) stations or smart Level 1 charging outlets can be considered for overnight use.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Mt. Whitney Apart-ments	375 N Mt Whitney Dr, Lone Pine	**Private Multi-Family Charging (Level 1/2)**	• 34 apartment units • Surface parking (nearly 50 spaces) • Across the street from Southern Inyo Hospital campus • 1 mile drive/walk (across US 395) to Tesla Superchargers (sixteen 250 kW ports)	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this development for current and potential residents

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Two Sixty Two Academy	262 Academy Avenue, Bishop	**Private Multi-Family Charging (Level 1/2)**	• 26 apartment units • No on-site parking (but plenty of parking in adjacent public parking lots) • 0.2 miles drive/ walk to Tesla Superchargers (twelve 250 kW ports) • 0.5 miles drive/walk to Rivian Adventure Network DCFCs (six 300 kW ports)	No opportunity to deploy chargers at this site due to lack of parking on-site. This property could benefit from public charging if installed at local parking lots or on-street (i.e., curbside charging).

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Sierra Apartments	2230 N Sierra Hwy, Bishop	**Private Multi-Family Charging (Level 1/2)**	• 26 apartment units • Surface parking (over 30 spaces) • 0.5 miles drive/walk to Tesla Superchargers (twenty-four 250 kW ports)	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this development for current and potential residents

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Fowler Apartments	467 S Fowler St, Bishop	**Private Multi-Family Charging (Level 1/2)**	• 20 apartment units • Surface parking (nearly 20 spaces) • 0.3 miles drive/walk to Tesla Superchargers (twelve 250 kW ports)	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this development for current and potential residents

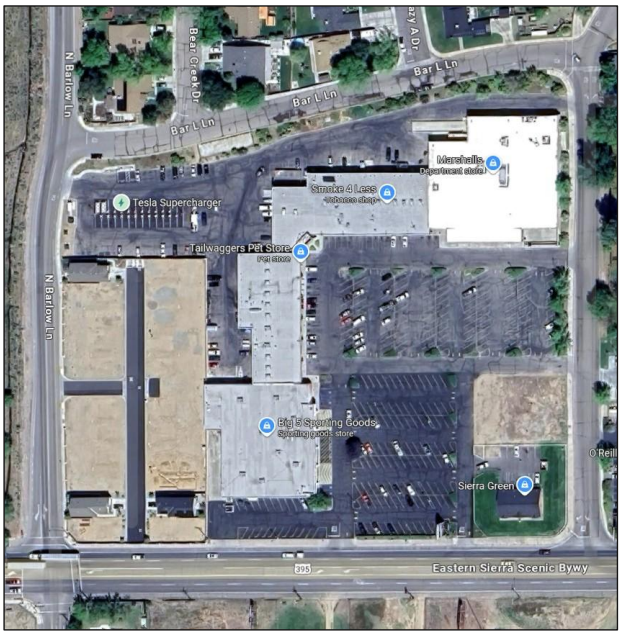
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Sierra Pines	724 W Pine St, Bishop	**Private Multi-Family Charging (Level 1/2)**	• 16 apartment units • Surface parking (approx. 20 spaces) • 0.6 miles drive/walk to Tesla Superchargers (twelve 250 kW ports)	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this development for current and potential residents

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Willow Plaza	324 Willow St, Bishop	**Private Multi-Family Charging (Level 1/2)**	• 12 apartment units • Carport parking (12 spaces) and surface parking (12 spaces) • 0.5 miles drive/walk to Tesla Superchargers (twelve 250 kW ports)	Deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of this development for current and potential residents

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Central Bishop, Lone Pine, Independence	Various Sites	**Private Multi-Family Charging (Level 1/2)**	• In addition to larger complexes listed above, various locations in central Bishop, Lone Pine, and Independence ranging up to 18 apartment units • Sites with dedicated parking	For larger sites (approximately 10+ units) deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of each development for residents. **For smaller sites, rely on publicly-accessible Level 2 charging** discussed under "Public Destination Charging".

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Northern Inyo Hospital	150 Pioneer Ln, Bishop	**Private Workplace Charging (Level 2)**	• Largest hospital in Inyo County • Various surface parking options available on all sides of the hospital	If dedicated employee parking area exists, deploy **Level 2 chargers in at least 10% of stalls**, with options for future expansion. If employees park in general (public) parking stalls, these chargers may be dual-use for employees and visitors.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Retail area by Dixon Lane-Meadow Creek	1300 Rocking W Dr, Bishop	**Private Workplace Charging (Level 2)**	• Multiple retailers with sizeable workforce (collectively), including Big 5 Sporting Goods, Rite Aid, multiple restaurants	Deploy **5-10 Level 2 charging ports** reserved for local workforce, if possible.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Inyo County Consolidated Office Building (COB)	1360 N Main St, Bishop	**Private Workplace Charging (Level 2)**	• Largest employment site owned & operated by the County • Multiple parking rows for public, fleet, and employee use • Publicly-owned property	Deploy **Level 2 chargers in at least 10% of employee-only parking spaces** to support local workforce EV adoption. Inyo County should adopt a workplace charging policy that defines usage fees, access, and maximum charging durations.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Central Bishop, Lone Pine, Independence	Various Sites	**Private Multi-Family Charging (Level 1/2)**	• In addition to larger complexes listed above, various locations in central Bishop, Lone Pine, and Independence ranging up to 18 apartment units • Sites with dedicated parking	For larger sites (approximately 10+ units) deploy **Level 2 charging ports in 3-6% of available parking spaces** to increase attractiveness of each development for residents. For smaller sites, rely on publicly-accessible Level 2 charging discussed under "Public Destination Charging".

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Parking Lot at Bishop City Hall	377 W Line St, Bishop	**Private Workplace Charging (Level 2)**	• Could support the City's workforce, including employees at City Hall and the adjacent Fire Station and Police Department • Approximately 56 parking spaces • Publicly-owned property	Deploy and **reserve 5-10 Level 2 charging ports for local City employees** to increase attractiveness of the City as an employer and support EV adoption.

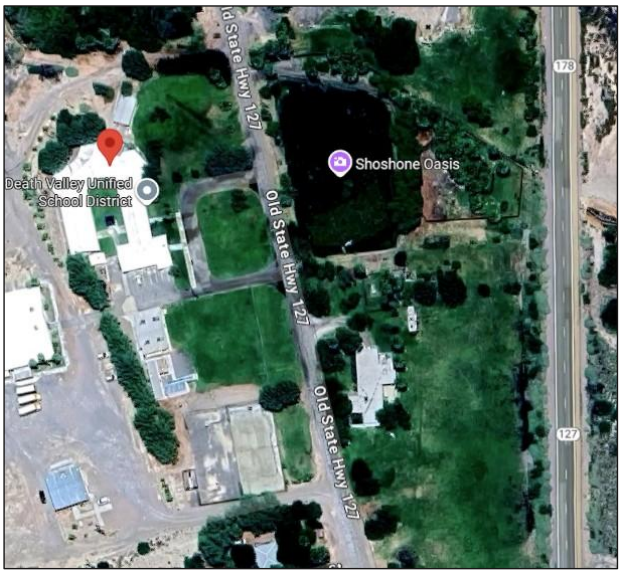
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Caltrans District 9 Headquarters	500 S Main St, Bishop	**Private Workplace Charging (Level 2)**	• Regional Caltrans facility supporting road work and other construction and maintenance projects with substantial workforce • Multiple behind-the-gate parking areas for fleet and employees • Publicly-owned property	Deploy **Level 2 charging ports for at least 10% of employees in dedicated area**, separate from fleet charging or shared with light-duty fleet vehicles. Ensure flexibility to expand charging infrastructure in the future as EV adoption among workforce grows.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Southern Inyo Hospital	501 E Locust St, Lone Pine	**Private Workplace Charging (Level 2)**	• Hospital with various surface parking options available	Deploy **5-10 Level 2 charging ports**. Parking stalls best suited for charger installations should be selected based on proximity to existing electrical service/panels. May also serve as public destination chargers.

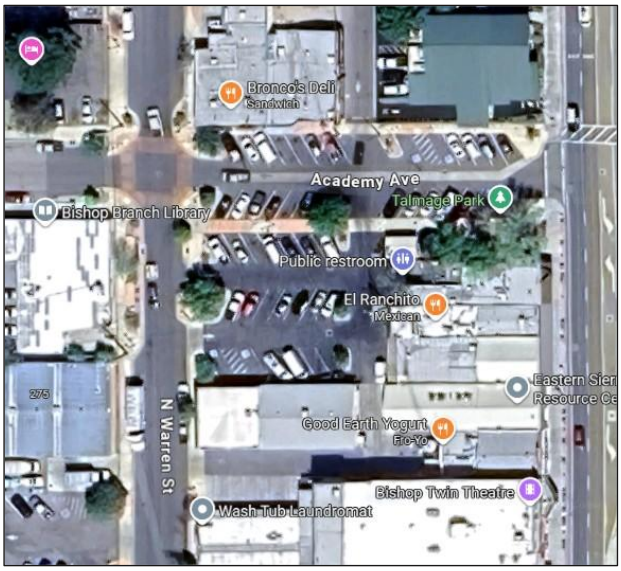
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
LADWP Maintenance Facility	101 & 201 S Webster St, Independence	**Private Workplace Charging (Level 2)**	• Regional LADWP facility with large yard domiciling fleet vehicles and other equipment • 101 S Webster St: Maintenance Facility with limited parking behind the building and on street • 201 S Webster St: large corporation yard for equipment and multiple facilities • Publicly-owned property	Deploy **Level 2 charging ports for at least 10% of employees in dedicated area**, separate from fleet charging or shared with light-duty fleet vehicles. Ensure flexibility to expand charging infrastructure in the future as EV adoption among workforce grows.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Furnace Creek	Along SR-190	**Private Workplace Charging (Level 2)**	• Multiple hotels/resorts with strong local, but seasonal workforce • The Oasis at Death Valley (hotel) • The Ranch at Death Valley (hotel) • Furnace Creek Ranch Golf Course	Deploy **10-20 Level 2 charging ports** across the various listed sites, reserved for employee use or shared with chargers available for visitors and guests.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Death Valley Unified School District	217 Old State Hwy 127, Shoshone	**Private Workplace Charging (Level 2)**	• Regional school district offices • Publicly-owned property • Could support local school district staff and other workforce	Deploy **4-6 Level 2 charging ports** for use by local employees.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Public parking lot at N Warren St & Academy Ave in Bishop	N Warren St & Academy Ave	**Public Community Fast Charging (DCFC)**	• Central to downtown business district, near multiple civil institutions (e.g. City Hall, Police Department, Inyo County Health & Human Services, etc.) and a variety of restaurants and retail opportunities • Approximately 20 parking spaces, high daytime utilization, no parking fee • Public restrooms on site • Publicly-owned property	Deploy **2-4 public DC fast chargers** accessible to EV drivers of different makes. Would serve locals without home charging access as well as travelers driving to, from, or through Bishop.

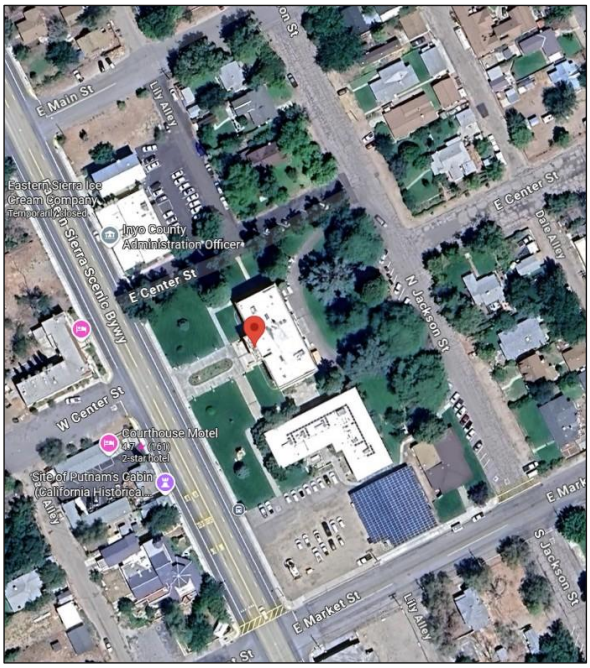


Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Bishop Airport	703 Airport Road, Bishop	**Public Community Fast Charging (DCFC)**	• Regional airport with daily and weekly commuters • Multiple surface parking lots • Potential opportunities for synergies between public charging and Eastern Sierra Transit Authority & Inyo County fleet vehicles	Deploy **1-2 high-speed DC fast chargers** in a location convenient for EV drivers dropping off or picking up airport travelers.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Grocery stores in Bishop	Various	**Public Community Fast Charging (DCFC)**	• Limited number of primary grocery stores in Bishop with high utilization by locals, such as Grocery Outlet (1320 N Main St) • Ideal for fast charging of local residents' EVs, due to low dwell times of typically 10-30 minutes	Deploy **2-4 high-speed DC fast chargers** at 2-3 grocery stores. Consider making EV charging access a perk for store customers by providing it close to the entrance.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Hi Country Market	101 N Main St, Big Pine	**Public Community Fast Charging (DCFC)**	• The only grocery store in Big Pine • Key destination with low dwell times for local residents	Deploy **1-2 DC fast chargers** for primary use by locals.

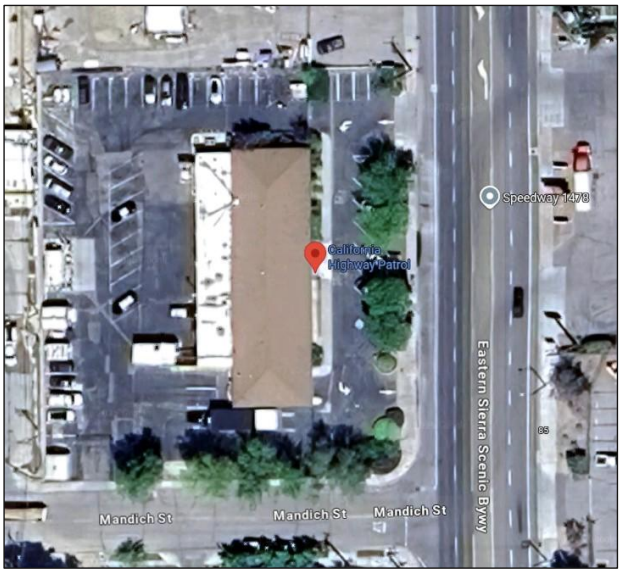
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Inyo County Administrative Complex	168 N Edwards St, Independence	**Public Community Fast Charging (DCFC)**	• Surface parking available • Publicly-owned property	Deploy **4-8 public DC fast chargers** accessible to EV drivers of different makes. Would serve locals without home charging access as well as travelers driving to, from, or through Independence.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Dehy Park	435 N Edwards St, Independence	**Public Community Fast Charging (DCFC)**	• Free parking with approximately 10 spaces • Small park with walkways inviting for dwell times of 10-20 minutes	Deploy **1-2 DC fast chargers** for primary use by locals visiting the park who may also lack access to home charging.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Lone Pine Market	119 S Main St, Lone Pine	**Public Community Fast Charging (DCFC)**	• Free, on-street parking by market entrance (on W Mountain View St) • Ideal for fast charging of local residents' EVs, due to low dwell times of typically 10-30 minutes	Deploy **1-2 DC fast chargers** for primary use by locals.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
California Highway Patrol – Bishop Area	469 S Main St, Bishop	**Public Corridor Charging (DCFC)**	• Conveniently-located along US-395 • Potential opportunities for synergies between public and CA Highway Patrol fleet charging • Publicly-owned property	Deploy **2-4 DC fast chargers** to support regional, long-distance travel needs and CHP fleet charging.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Gas stations in Bishop	Various	**Public Corridor Charging (DCFC)**	• 9 gas stations in Bishop	Deploy **4-6 DC fast chargers** across select locations to support regional, long-distance travel needs.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Big Pine Paiute Tribal Office	825 S Main St, Big Pine	**Public Corridor Charging (DCFC)**	• Conveniently located along US-395 • Revenue opportunity for local tribe	Deploy 1-2 DC fast chargers to support regional, long-distance travel needs.

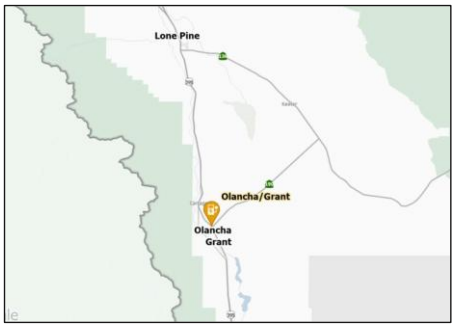
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Gas stations in Big Pine	Various, along US-395	**Public Corridor Charging (DCFC)**	• 3 gas stations in Big Pine (Shell, Chevron, Mobil) • Amenities such as restrooms and food marts	Deploy **2-4 DC fast chargers** at one location to support regional, long-distance travel needs.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Gas stations in Independence	Various, along US-395	**Public Corridor Charging (DCFC)**	• 2 gas stations in Independence (Valero & Shell) • Amenities such as showers, restrooms, mini-marts	Deploy **2-4 DC fast chargers** at one location to support regional, long-distance travel needs.

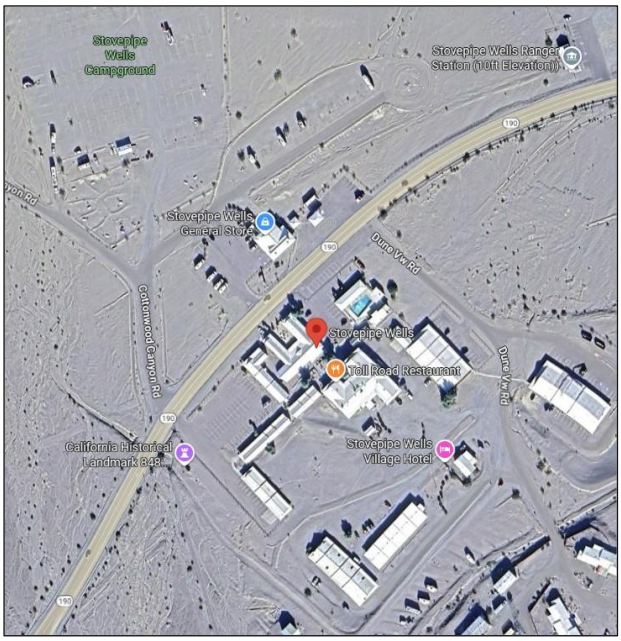
Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Eastern Sierra Visitor Center	US-395 & SR-136, Lone Pine	**Public Corridor Charging (DCFC)**	• Interagency visitor center • Ideal for tourists visiting the Eastern Sierra who travel through the US-395 and SR-136 corridors • Publicly-owned property	Deploy **1-2 DC fast chargers** to support regional, long-distance travel needs.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Gas stations in Lone Pine	Various, along US-395	**Public Corridor Charging (DCFC)**	• 2 gas stations in Lone Pine (Chevron, Shell) and 1 outside (Chevron, south of town) • Ideal for tourists visiting the Eastern Sierra who travel through the US-395 corridor	Deploy **2-4 DC fast chargers** at one location to support regional, long-distance travel needs.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Olancha/ Grant	Various, along US-395	**Public Corridor Charging (DCFC)**	• Multiple potential locations: U.S. Post Office, Mobil gas station	Deploy **2-4 DC fast chargers** at one location to support regional, long-distance travel needs.

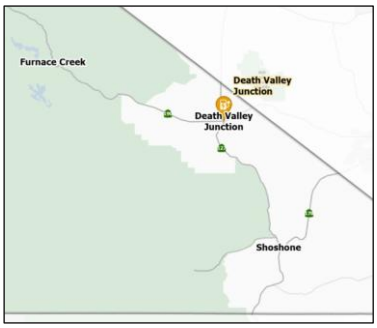


Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Stovepipe Wells	Various, along SR-190	**Public Corridor Charging (DCFC)**	• Critical intermediate point between US-395 corridor and Death Valley National Park	Deploy **4-8 DC fast chargers** at one location to support regional, long-distance travel needs.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Furnace Creek Visitor Center	Airport Rd, Death Valley	**Public Corridor Charging (DCFC)**	• Ideal for tourists visiting Death Valley National Park or traveling through the SR-190 corridor between California and Nevada • Publicly-owned property	Deploy **6-12 DC fast chargers**.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Death Valley Junction	SR-190 & SR-127	**Public Corridor Charging (DCFC)**	• Multiple potential locations: Amargosa Café, cannabis store, Marta Becket Monument	Deploy **2-4 DC fast chargers** at one location to support regional, long-distance travel needs.



Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Spain-hower Park	430 N Main St, Lone Pine	**Public Destination Charging (Level 2)** **Public Corridor Charging (DCFC)**	• Tennis & basketball courts • Playground • Picnic areas • Gas station & convenience store • Restaurants in walking distance • Located along U.S. 395	Deploy **5-10 Level 2 or 1-2 DC fast chargers** at one location to support regional, long-distance travel needs and visitors to the park.

Name	Address	Charging Use Case	Relevant Site Features	Potential Charger Installations
Diaz Lake	5007 S Main St, Lone Pine	**Public Destination Charging (Level 2)** **Public Corridor Charging (DCFC)**	• Lake and campground with basic amenities • Popular recreational destination • Located along U.S. 395	Deploy **5-10 Level 2 or 1-2 DC fast chargers** at one location to support regional, long-distance travel needs and visitors to the lake/campground.

APPENDIX E. OVERVIEW OF ALTERNATIVE FLEET EV CHARGING STRATEGIES

INTRODUCTION

The purpose of this appendix is to provide an overview of possible charging strategies for future electric vehicles (EVs) in Inyo County's fleet. The consultant team assessed these alternative charging strategies, given the County's operational needs. The following provides an overview of the operational workings, benefits, and disadvantages of both a dedicated and a shared charging strategy.

This appendix evaluates two primary charging strategies:

1. *Dedicated* strategy with dedicated Level 2 charging plugs (ratio of 1 charger per 1 EV) with load management
2. *Shared* strategy with shared Level 2 chargers (more than 1 EV per charger) with smart charging software

SMART CHARGERS AND LOAD MANAGEMENT

Load management is software used by so-called "smart chargers" that are connected to the internet via WiFi, cell or fiber with the ability to communicate, collect data and be remotely managed.

Smart chargers can reduce the maximum power draw to avoid or mitigate needed electrical service upgrades or utility demand charges by splitting or balancing the power between chargers (load splitting or balancing), or load management systems. These systems allow fleet operators to control when and how each fleet EV is charged by distributing power between chargers.

By utilizing a load management system, certain facilities may be able to avoid the need for electrical service upgrades. Additionally, since load management can integrate with a building's electrical system, facility upgrades that conserve electricity, such as replacing windows, installing air barriers, or upgrading lighting to multi-level LED can significantly increase capacity for vehicle charging at fleet parking garages that share their electrical systems with buildings.

An additional benefit of smart chargers is their ability to collect data on charging which is useful for informing future planning, for monetizing Clean Fuel Standard (CFS) credits, and other needs. Many smart chargers also typically have the ability to collect and track payments from charging sessions, useful for accounting and revenue collection.

The disadvantages of networked smart chargers required for load management are higher purchase costs for the chargers themselves and the ongoing monthly data and service costs that can vary depending on the individual system architecture and quantity of chargers.

By comparison, so-called "dumb" chargers lack data collection and connectivity and thus do not feature any advanced capabilities such as load management or sharing, demand response, or comprehensive user and data interfaces. While dumb chargers may be used under a dedicated charging strategy, we typically recommend fleets deploy so-called "smart" chargers to facilitate managed charging. Such chargers, which feature the aforementioned capabilities, have become the quasi-standard in the industry and allow the fleet operator to track charging data and manage charger power outputs based on desired parameters including each EV's state-of-charge, shift start times, and power constraints.

For these reasons, we recommend using smart chargers for both dedicated or shared charging as explained below.

STRATEGY WITH DEDICATED LEVEL 2 CHARGERS

The basic way to charge a fleet is with individual chargers dedicated to each vehicle in the fleet. This approach to charging typically requires each fleet EV to be assigned a parking stall and that each parking stall be equipped with its own Level 2 charger.

OPERATIONS

From the driver's perspective, vehicle users pick up the fleet EV at the assigned stall, manually disconnect the charger before driving, and later return the EV to the same assigned stall and reconnect the charging cord. Fleet or facility managers would be able to monitor EV charging in real-time, and have the ability to prioritize charging of certain EVs or adjust the power distribution between EV charging and the building or other loads.

BENEFITS

Of the different charging strategies considered, dedicated smart charging provides the most operational simplicity while also providing data and the ability to manage electrical loads. The primary benefits of dedicated Level 2 charging include:

- Enhanced ability to charge medium- and heavy-duty fleet vehicles with light or variable duty cycles and provides charging flexibility.
- A charger to EV ratio of 1:1 will optimize the benefits of bidirectional charging for fleet vehicles with bidirectional charging capability for providing backup power to facilities, fleet EVs and generating grid services revenue through vehicle-to-grid-integration.

DISADVANTAGES

The main disadvantages of dedicated chargers include cost inefficiency and construction impacts. A ratio of one charger per parking stall or per EV requires installation of numerous electrical outlets or chargers which is generally inefficient because each charger would typically be in use for charging only a relatively small fraction of the time. Compared to sharing chargers, this can potentially be a costly approach due to the expense of procuring and installing more chargers. In addition, Chapter 6 of Section 625 of the National Electrical Code (NEC) requires a dedicated single pole circuit breaker for each 110 V outlet (used by Level 1 chargers) or 220 V Level 2 charger. Depending on the number of EVs to charge, this can easily exceed the capacity of each facility's main electrical panel, requiring installation of subpanels. As a result, many medium-sized and most large fleet facilities will typically require costly electrical service upgrades including a new electrical panel or subpanel to comply with this requirement.

Of the two charging strategies considered, dedicated smart chargers can be the most costly strategy due to the higher cost of purchasing and installing more chargers coupled with the expense of larger electrical service upgrades, conduit and wire installation as well as site restoration.

GENERAL RECOMMENDATIONS

Dedicated chargers generally make the most sense in fleet depot facilities with ample power supply where relatively large numbers of heavily utilized light duty EVs with long dwell times will be domiciled in assigned parking stalls.

STRATEGY WITH SHARED LEVEL 2 CHARGERS

At facilities with shared chargers, a reduced number of Level 2 chargers are installed to serve all the fleet EVs domiciled by rotating vehicles between chargers, in other words taking turns charging. Based on relatively low use/mileage (miles/day) and parking durations (12-16 hours), this should be generally feasible for most EV fleets operated by public agencies.

OPERATIONS

This can be accomplished by rotating parking assignments, or by installing the chargers centrally between parking stalls so that each charger can access multiple EVs simply by moving the charge cord from vehicle to vehicle. Not needing to charge their batteries every night means fleet EVs could passively share chargers by taking turns based on a schedule or through active management depending on each vehicle's state of charge.

Additionally, one or more shared DC fast chargers could potentially supplement shared Level 2 chargers at fleet facilities with multiple light-, medium-, and heavy-duty EVs in the future as EV fleets diversify with the addition of heavier vehicle classes. In cases where dwell times are limited to less than eight hours, the anticipated duration of charging may still be sufficient to charge the fleet if there is a relatively small number of EVs, the EVs are light or medium-duty with small batteries, or their typical daily mileage is relatively low as is the case for Inyo County's fleet.

BENEFITS

The primary benefits of sharing chargers include mitigating potential electric service upgrade costs and reducing initial investment costs associated with the procurement and installation of chargers since a reduced number of individual chargers is required. This approach is also useful to leverage the constrained electrical capacity of certain sites to install more chargers that would share the limited electrical service by managing (or balancing) the load.

In cases where fleet chargers are also used for workplace or public charging, the utilization of shared chargers also simplifies the operational workings of a potential charger sharing with personal EVs. Chargers and their associated software could distinguish between fleet EVs and personally-owned vehicles in charging sessions, for example by equipping fleet vehicle drivers with suitable RFID cards that ensure the respective department or group pays for the right charging sessions. Employees who would like to charge their personal EVs on the same charging stations would instead need to pay via credit card or by using the respective charger vendor's app, unless Inyo County would allow its employees or other users to charge their personal vehicles for free. This way, employees are not bound to specific, dedicated charging stations and parking stalls.

DISADVANTAGES

Operational logistics: Sharing chargers requires careful management of fleet EVs to ensure that all vehicles maintain a sufficient state of charge for their intended daily use. If the vehicles or the charge cords would need to be moved, behavioral adjustment by fleet vehicle drivers or by dedicated fleet or parking management staff or contractors would be needed which increases operation costs. However, in many fleets, most vehicles only need to be charged every few days, and this can be done overnight. In this case, there are no costs for dedicated fleet or parking management staff. Charging sessions need to be planned or scheduled based on typical or actual vehicle usage to ensure each fleet EV maintains sufficient charge for its mission.

GENERAL RECOMMENDATIONS

Sharing chargers makes the most sense under the following circumstances:

- Fleet facilities that serve fleet EVs that typically drive less than 40 miles per day and have dwell times longer than eight hours.
- Fleet facilities with limited available electrical capacity to avoid the expense of electrical service upgrades.
- Fleet facilities at which a schedule could be introduced according to which typical daily vehicle charging needs can be met (with extraordinary charging needs to be meet by supplemental DC fast chargers)
- Fleet facilities lacking assigned parking

TYPICAL CAPITAL COST DIFFERENCES BETWEEN DEDICATED AND SHARED CHARGERS

Based on DKS' extensive fleet electrification planning and design experience, *dedicated* chargers are typically 50-250% more expensive to deploy than *shared* chargers, given the common need for electrical service upgrades. Based on the estimated capital expenditure of about $6.2 million needed to deploy all necessary fleet charging infrastructure at sites covered in this report, providing dedicated as opposed to shared chargers could easily result in additional investments needs of multiple millions of dollars. The recommendations provided in this report are designed to balance the need to limit capital expenditure with operational convenience.

The lower end of that range would apply for facilities at which no major electrical system upgrades are needed. The higher end of that range applies when upgrades such as on the transformer, switchboard, or panel level are necessary. Electrical upgrades can be substantially more expensive when attempting to provide dedicated chargers for each fleet EV than when sharing a smaller number of chargers between EVs.

While at many fleet facilities the existing electrical panels may support a limited number of Level 2 charging stations (say, 2-3 low-output dual-plug stations), deploying more chargers (as required by the dedicated strategy) would incur expensive electrical upgrades involving new panels, switchboards, and/or transformers. Additionally, such upgrades substantially delay the process of providing charging infrastructure for new fleet EVs given frequent delays in the provision of utility-side upgrades and the procurement of the mentioned electrical hardware.

TABLE 27: OVERVIEW OF GENERAL CHARGING STRATEGIES SUITABLE FOR EV FLEETS

	DEDICATED LEVEL 2 CHARGERS	SHARED LEVEL 2 CHARGERS
OPERATIONS	• Drivers manually connect and disconnect the vehicle to and from the charger upon returning to the vehicle and before using it, respectively • For fleet and facility managers: ability to monitor EV charging in real-time, ability to prioritize certain vehicles or adjust or limit power output	• Rotate parking assignments or install chargers between parking stalls so that they can be accessed by multiple vehicles • Take turns or follow schedule for charging vehicles (not charging every day or night) • A shared DC fast charger could supplement at large facilities that house a diverse vehicle fleet
BENEFITS	• Most operational simplicity • Enhanced ability to charge medium- and heavy-duty vehicles • Optimal utilization of capabilities of bidirectional charging	• Mitigated potential electric service upgrades • Reduced initial investments costs for procurement and installation of chargers • Leverage constrained electrical service at certain sites
DISADVANTAGES	• Resource inefficiency • Large infrastructure investments • Large construction impacts	• Requires careful management of fleet EVs and their SOC • Requires behavioral adjustment by fleet vehicle drivers (as vehicles and/or charge cords need to be moved) or dedicated fleet staff or contractors which increases operation costs • Requires more planning around when and where which numbers of chargers need to be in place
GENERAL RECOMMENDATIONS AND SUITABLE USE CASES	• Fleet depot facilities with limited power supply and a relatively large number of heavily-utilized light-duty EVs with long dwell times	• Facilities that serve fleet EVs that typically drive less than 40 miles per day and have dwell times longer than eight hours • Facilities with limited available electrical capacity to avoid the expense of electrical service upgrades • Facilities at which a schedule could be introduced according to which typical daily vehicle charging needs can be met

SUPPLEMENTAL DC FAST CHARGERS

In addition to a recommended set of Level 2 charging stations for regular baseload charging operations (whether in a dedicated or shared strategy), high-power DC fast charging infrastructure may be used to supplement Level 2 charging in order to provide additional resilience in the form of charging capacity and speed. Specifically, supplemental DCFCs are recommended at larger fleet facilities where larger concentrations of fleet EVs are domiciled, especially for medium- and heavy-duty fleet EVs and/or mission critical assets, such as at Public Works corp yards and police departments.

In addition to DC Fast Chargers installed at fleet facilities, there may be publicly available DC Fast Chargers operated by commercial charging networks such as EVGo, Electrify America, Tesla, and others convenient to fleet operations. Thanks to recent federal and state funding, more chargers are being installed, especially NEVI-funded clusters of four 150 kW DC Fast Chargers located within one mile of freeway interchanges on designated Alternative Fuel Corridors.

Potential **benefits** of supplemental DCFCs include:

- **Resiliency:** If an overnight power outage or a malfunction of individual Level 2 chargers prevents fleet EVs from obtaining a full state of charge.
- **Charging capacity contingency:** Supplemental DCFCs can help meet each fleet EV's charging needs even in events of unexpected, high demand. This may be the case on days or weeks where fleet EVs are assigned additional duties beyond "average" duty cycles, such as when vehicles would need to embark on a longer trip or tow a trailer.
- **Fool proofing:** Supplemental DCFCs can mitigate the impacts of human error. If drivers forget to plug their EVs into the L2 charger overnight, they can quickly charge up at the DCFC.
- **Opportunity charging:** Staff with fleet EVs parked at one site can use the supplemental DCFC at another if needed, since these chargers are not assigned to any specific vehicles and can charge in a short time.
- **Address range anxiety:** DC fast charging infrastructure can also help mitigate fleet EV drivers' concerns regarding the driving range of their EV and occasional need to quickly top off the battery state-of-charge.
- **Public benefit and revenue:** When not in use by fleet EV drivers, DCFCs could be made available to other EV drivers depending on the charger's location for employees, other agencies and the general public. Charging revenues collected from these other users can offset program costs.

Disadvantages of supplemental DCFCs may include:

- **Additional costs:** Compared to L2 chargers, DCFCs are significantly more expensive to purchase and maintain.
- **Potential redundancy:** If the recommended charger strategies work as intended, supplemental DCFCs may not be used as much as anticipated, which could undermine the justification of the significant investment in the first place. If such a situation were to occur, it could possibly be addressed by repurposing the chargers for other uses, such as employee or public charging.

APPENDIX F. SITE-SPECIFIC FLEET CHARGING INFRASTRUCTURE RECOMMENDATIONS

INTRODUCTION

This appendix includes the detailed fleet charging infrastructure installation recommendations for nine Inyo County fleet domiciles. The project team's findings are based on detailed discussions with County staff, information provided by the County that consisted of fleet vehicle data, as-built drawings, utility electric bills and photos of the electrical equipment at the selected sites, as well as open sources such as GIS and Google Maps were also used to evaluate sites remotely. The project team did not perform in-person visits, and some as-built drawings and utility bills were not available. As such, the exact locations and load profiles of certain equipment are estimated and need to be verified by the electrical contractor selected to install the EVSE. The recommendations, site plans, and costs presented here are for planning purposes.

All of the Level 2 (L2) and DC fast chargers (DCFC) proposed are dual-port[27] unless otherwise specified. **Table 28** shows the power ratings that apply to the charging hardware recommendations in this report:

TABLE 28: MAX POWER DELIVERED PER PORT FOR EVSE CLASSIFICATIONS

OUTPUT (KW) CLASSIFICATION	LEVEL 2 AC	DC (SLOW AND FAST)
LOW	6.2 to 7.6 kW	n/a
MEDIUM	8.3 to 11.5 kW	22.5 kW
HIGH	12 to 19.2 kW	150 kW +

Unless otherwise specified, the project team sized the proposed electrical equipment based on chargers rated at the high end of each range (e.g. 11.5 kW for medium output Level 2); however, if available power becomes an issue based on final load calculations, then the installation contractor could derate[28] or opt for chargers at the lower end or middle of the range without compromising the fleet vehicles' ability to fully recharge overnight.

[27] Dual-port stations can charge two EVs simultaneously, either via one unit with dual cables, or two single-cable units attached to one pedestal.

[28] Reduce the power that an EV charger can draw from the grid through limits set by hardware or software, also known as local load management.

CONSOLIDATED OFFICE BUILDING (COB) – 1360 N MAIN ST, BISHOP

Site Overview

Completed in 2022, the Clint G. Quilter Consolidated Office Building (COB) houses several County services under one roof. The large-two story facility serves as a central hub for an array of County departments previously scattered across several locations throughout Bishop.

Fleet Vehicles

Per the dataset provided by the County in September, there are 64 fleet vehicles that domicile at this location on a regular basis. All are considered light-duty, Class 1 or 2. This includes 46 SUVs, 12 vans, 4 trucks, and 2 sedans. If all 64 vehicles were electric, they would consume a total of 639 kWh of electricity per day to recharge their batteries, averaging less than 10 kWh per EV per night.

Fleet Parking

The COB building is surrounded by a publicly accessible, open-air, paved asphalt, mixed-use parking lot with 260 striped stalls for visitors, employees and fleet vehicles. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a 1200 kVA (size estimated based photos) pad-mounted utility transformer located in the middle of the North side of the parking lot. The utility is Southern California Edison (SCE).

The main service switchboard located on the north side of the building is rated for 4000 Amps, 208 Volts, 3-phase power, providing the entire site with 1,441 kilowatts (kW) of installed capacity. There are several subpanels throughout the building with a total connected load of 830 kW per the as-built plans.

The site overall has between 611 and 1,153 kW of spare capacity available for future loads. The low end of the range is a very conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period per utility bills.

The peak power demand for the twelve-month period December 2023-December 2024 was 128 kW in July. Compared against the site's main service capacity of 1,441 kW, the highest amount of

power consumed in the given year did not exceed 9% of this capacity. As such, **there is sufficient spare capacity to power the proposed EVSE at this site.**

TABLE 29: COB EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	EST. SPARE CAPACITY (KW)	PROPOSED EVSE (KW)	PROPOSED EVSE WITHOUT DCFC (KW)
208	4000	3	1441	611-1153	738	138

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, existing facility electrical conditions, and the County's preference for the inclusion of supplemental DCFC stations for opportunity charging, DKS recommends two options for the installation of the following charging stations at this location:

Proposed EVSE (with supplemental DC fast charging):

- Six medium-output dual-port AC Level 2 charging stations
- Two 150kW dual-port DCFC stations (150 kW X four ports)

Overall, light vehicle types and moderate daily usage of typically less than 30 miles per day mean that most of the domiciled EVs could be used for several days before requiring a recharge. The six recommended Level 2 charging stations would provide twelve charging plugs rated at medium output. Given that the COB currently domiciles 64 fleet vehicles, an average of four future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight at least once per week on a set schedule. The two recommended DCFC stations would provide four charging plugs rated at 150 kW each. These stations would be used to provide flexibility for EVs to rapidly recharge during a shift (e.g. 15 minutes to add 100 miles of range) and maintain the readiness of mission critical vehicles. The DCFC Stations could also be utilized by County fleet EVs that visit the COB but are not domiciled there.

For the proposed charging strategy, the recommended EVSE at this site would yield a total new load of about 738 kW. Given the ample amount of available power at this site, the proposed chargers could be installed on existing capacity without the need for a new utility service or an upgraded transformer. A new 400A 208V 3-phase panel will be needed to support the six Level 2 charging stations. Additionally, a new 750 kVA 208V to 480V step-up transformer and 1000A 480V panel will be required to feed the two DCFC stations.

For the alternative charging strategy without DCFCs, the recommended EVSE at this site would yield a total new load of about 138 kW. This alternative would still require a 400A 208V panel to support the 6 Level 2 charging stations.

Figure 51 below depicts the site layout under the proposed recommendation with six Level 2 and two DCFC stations. Existing infrastructure is shown in blue and proposed chargers are shown in red. The specific charger recommendations and associated capital and operating costs are summarized both with or without supplemental DC Fast Chargers in **Table 30**.

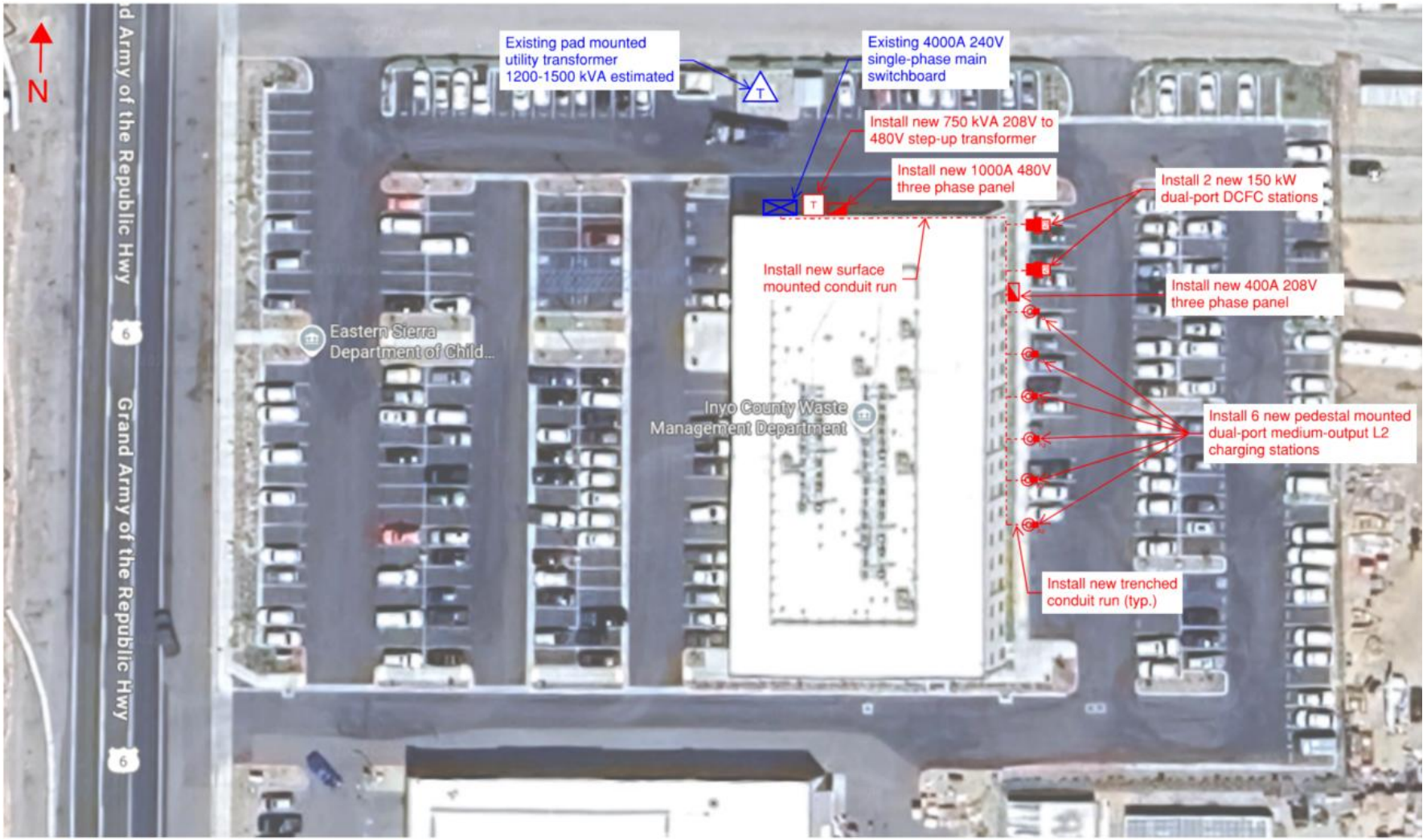


FIGURE 51: COB CONCEPTUAL DRAWING FOR PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 30: COB CAPEX AND OPEX

		WITH DCFC:	WITHOUT DCFC:
VEHICLES TO BE ELECTRIFIED			64
CHARGER INSTALLATIONS		• 6 dual-port medium-output Level 2 stations • 2 Dual-port 150 kW DCFC stations	• 6 dual-port medium-output Level 2 stations
CAPEX	CHARGERS	$390,600	$54,450
	MATERIALS	$250,270	$92,040
	CIVIL/LANDSCAPING	$6,000	$6,000
	PERMITS	$6,000	$6,000
	UTILITY UPGRADES	$0	$0
	CORE COSTS SUBTOTAL	**$652,870**	**$158,490**
	DESIGN & ENGINEERING	$130,570	$31,700
	PRE-CONSTRUCTION ACTIVITIES	$32,640	$7,920
	CONSTRUCTION MANAGEMENT	$32,640	$7,920
	MOBILIZATION & COMMISSIONING	$65,290	$15,850
	ADMIN & SALARY	$32,640	$7,920
	CONTINGENCIES	$163,220	$39,620
	SUPPORTING COSTS SUBTOTAL	**$457,000**	**$110,930**
	TOTAL CAPEX Per vehicle Per charging port	**$1,109,870** $17,300 $69,400	**$269,420** $4,200 $22,500
ANNUAL OPEX	ROUTINE MAINTENANCE	$1,990	$1,600
	CORRECTIVE MAINTENANCE	$600	$600
	SOFTWARE LICENSING	$1,560	$1,560
	NETWORKING FEES	$1,020	$1,020
	POTENTIAL KWH FEE	$1,670	$1,670
	ELECTRICITY EXPENSES	$35,710	$37,550
	LCFS REVENUE	-$8,930	-$9,390
	TOTAL ANNUAL OPEX Per EV Per charging port	**$33,620** $530 $2,100	**$34,610** $540 $2,880

3RD STREET YARD – 468 S 3RD ST, BISHOP

Site Overview

The 3rd Street Yard is a small, gated unpaved lot used for fleet vehicle storage in the southeast of Bishop. The Yard contains a small metal structure in the southwest corner which houses the site's electrical equipment, and a storage container in the southeast corner. A row of overhead lights along the southern fence line provide illumination for the facility.

Fleet Vehicles

Twenty-five County fleet vehicles are domiciled at this location. This includes 13 light-duty and 12 medium-duty vehicles, such as various kinds of utility trucks.

Fleet Parking

The 3rd Street yard has two rows of parking spaces, one along the northern fence line, and one along the southern fence line. The parking stalls are unmarked, but each row can fit approximately 20-25 vehicles, giving the yard an overall capacity of 40-50 parking stalls. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a 25 kVA pole-mounted transformer located approximately 350 feet north of the Yard. The utility is unconfirmed but is likely Southern California Edison (SCE).

The main service panel is located on a lighting pole in the southwest corner of the Yard. This panel is rated for 100 Amps, 240 Volts, single phase power, providing the site with 24 kilowatts (kW) of installed capacity. There are no additional subpanels at this facility.

The site overall has between 9 and 17 kW of spare capacity available for future loads. The low end of the range is a very conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range is a more realistic estimate in which the existing loads are assumed to be running at 50% of the maximum breaker rating.

Due to a lack of utility data, the consultant team was unable to determine a peak power demand for 3rd Street Yard during the last year. Regardless, **the existing electrical service at this facility is insufficient for the proposed EVSE and utility upgrades will be required.**

TABLE 31: 3RD STREET YARD EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)
240	100	1	24	9-17	92

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, and existing facility electrical conditions, DKS recommends the installation of the following charging stations at this location:

- Four medium-output dual-port AC Level 2 charging stations

Overall light vehicle types and moderate daily usage of typically less than 40 miles per day mean that most of the domiciled EVs could be used for several days before requiring a recharge. The four proposed Level 2 charging stations would provide eight charging plugs rated at 9.6 kW each. Given that 3rd Street Yard currently domiciles 25 fleet vehicles, an average of three future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight one to two times per week.

The proposed chargers at this site would yield a total new load of about 76.8 KW. This amount exceeds the 9 - 17 kW of available capacity of the existing electrical service. Given the low estimates for available capacity, as well as the limited available demand data, it is recommended to install all proposed charging stations on a new or upgraded electrical service. As such, a new 112.5 kVA utility transformer and a 400 Amp 240 Volt panel should be installed at 3rd Street Yard to provide capacity for the recommended EVSE. The locations of existing electrical infrastructure and the proposed chargers (in blue and red respectively) are shown below in **Figure 52** and the estimated capital and operating costs are summarized below in **Table 32**.

FIGURE 52: 3RD STREET YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 32: 3RD STREET YARD CAPEX AND OPEX

		PROPOSED EVSE INSTALLATION
VEHICLES TO BE ELECTRIFIED		25
CHARGER INSTALLATIONS		• 4 dual-port medium-output Level 2 stations
CAPEX	CHARGERS	$36,300
	MATERIALS	$70,710
	CIVIL/LANDSCAPING	$9,000
	PERMITS	$6,000
	UTILITY UPGRADES	$67,250
	CORE COSTS SUBTOTAL	$189,260
	DESIGN & ENGINEERING	$37,850
	PRE-CONSTRUCTION ACTIVITIES	$9,460
	CONSTRUCTION MANAGEMENT	$9,460
	MOBILIZATION & COMMISSIONING	$18,930
	ADMIN & SALARY	$9,460
	CONTINGENCIES	$47,320
	SUPPORTING COSTS SUBTOTAL	$132,480
	TOTAL CAPEX Per vehicle Per charging port	**$321,740** $12,900 $40,200
ANNUAL OPEX	ROUTINE MAINTENANCE	$1,260
	CORRECTIVE MAINTENANCE	$300
	SOFTWARE LICENSING	$1,200
	NETWORKING FEES	$1,020
	POTENTIAL KWH FEE	$1,710
	ELECTRICITY EXPENSES	$38,440
	LCFS REVENUE	-$9,610
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$34,320** $1,370 $4,290

BIG PINE ROAD YARD – 150 DEWEY ST, BIG PINE

Site Overview

The Big Pine Road Yard is an unpaved vehicle yard located at the intersection of Dewey street and Hall street in Big Pine. The Yard consists of a small administrative building in the southeast corner, a storage container along the southern fence line, and a small shed in the northwest corner. The site has an access control gate connecting to Dewey street.

Fleet Vehicles

Ten vehicles from the Inyo Co. Roads Department are domiciled at this site. These include five medium-duty pickup trucks, three heavy-duty vehicles, as well as two pieces of off-road equipment. The heavy-duty vehicles consist of a snowplow, a dump truck, and a hauling truck. The off-road equipment consists of one tractor and one loader.

Fleet Parking

The Big Pine Road Yard is primarily an open dirt lot with space for parking along the eastern and western fence lines. The parking stalls are unmarked, but each row can fit approximately ten heavy-duty vehicles, giving the yard an overall capacity of twenty large parking stalls. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a pole-mounted utility transformer with unknown specifications located near the gate along Dewey street. The utility is Los Angeles Department of Water and Power (LADWP).

The main service panel is located on the southern wall outside of the admin building. This panel is rated for 200 Amps, 240 Volts, single phase power, providing the site with 48 kilowatts (kW) of installed capacity. No subpanels were observed at this facility.

The site overall has between 33 and 37 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period per utility bills.

The peak power demand for the twelve-month period December 2023-December 2024 was 4 kW. Compared against the site's main service capacity of 48 kW, the highest amount of power consumed in the given year did not exceed 9% of this capacity. As such, **there is sufficient spare capacity to power some of the proposed EVSE for this site, but electrical upgrades will be required for a full buildout.**

TABLE 33: BIG PINE ROAD YARD EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)	PROPOSED EVSE WITHOUT DCFC (KW)
240	200	1	48	33-37	368.5	68.5

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, existing facility electrical conditions, and the County's preference for the inclusion of supplemental DCFC stations for opportunity charging, DKS recommends two options for the installation of the following charging stations at this location:

Proposed EVSE (With supplemental DCFC):

- Two medium-output dual-port AC Level 2 charging stations
- One 22.5 kW single-port DC charging station
- One 150 kW dual-port DCFC station

Overall heavy vehicle types and moderate daily usage of typically less than 30 miles per day mean that most of the domiciled EVs could only be used for two to three days before requiring a recharge. The two proposed Level 2 charging stations would provide four charging plugs rated at up to 11.5 kW each. The Level 2 charging plugs should primarily be used to charge the medium-duty vehicles overnight at this site. The one proposed single port 22.5 kW DC charging station should be used for overnight charging of the heavy-duty vehicles, since they may not be able to accept AC Level 2 charging. Given that the Big Pine Road Yard currently domiciles 10 fleet vehicles, an average of two future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight approximately every other night. The one proposed DCFC station will provide two charging plugs rated at 150 kW each. This station should be used to provide flexibility for vehicles to rapidly recharge during a shift and maintain the readiness of mission critical vehicles. The DCFC Station can also be utilized by County vehicles which may visit the Big Pine Road yard but are not domiciled there.

For the proposed strategy, the recommended EVSE at this site would yield a total new load of about 368.5 kW. Given the limited amount of available power at this site, the proposed chargers cannot be installed using existing capacity without a new utility service. The existing 200A 240V panel should be utilized to provide power to one of the proposed dual-port medium-output Level 2 charging stations. A new service would be required at this site to provide power to the remaining charging stations. This should include a pad-mounted 500 KVA 480 Volt three-phase utility transformer, an 800 Amp 480 Volt switchboard, a 75 kVA 480V to 208V step-down transformer, and a 200 Amp 208V three-phase panel.

For the alternative charging strategy without DCFC, the recommended EVSE at this site would yield a total new load of about 68.5 kW. Given the limited amount of available power at this site, the alternative proposed chargers would still not be able to be installed using existing capacity without the need for electrical upgrades. The existing 200A 240V panel should be utilized to provide power to one of the proposed dual-port medium-output Level 2 charging stations. A new service would be required at this site to provide power to the remaining charging stations. This should include a new 75 KVA utility transformer which could be pole-mounted to reduce construction costs, a 100 Amp 208 Volt three-phase panel to support the 22.5 kW DC charging station. The locations of existing electrical infrastructure and the proposed chargers (in blue and red respectively) are shown below in **Figure 8** and the estimated capital and operating costs with and without supplemental DCFSs are summarized below in **Table 34**.

FIGURE 53: BIG PINE ROAD YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 34: BIG PINE ROAD YARD CAPEX AND OPEX

		PROPOSED:	ALTERNATIVE:
VEHICLES TO BE ELECTRIFIED			10
CHARGER INSTALLATIONS		• 2 dual-port medium-output Level 2 stations • 1 single-port 22.5 kW DC station • 1 Dual-port 150 kW DCFC station	• 2 dual-port medium-output Level 2 stations • 1 single-port 22.5 kW DC station
CAPEX	**CHARGERS**	$201,800	$33,730
	MATERIALS	$144,360	$111,460
	CIVIL/LANDSCAPING	$15,000	$12,000
	PERMITS	$6,000	$6,000
	UTILITY UPGRADES	$93,560	$67,250
	CORE COSTS SUBTOTAL	**$460,720**	**$230,440**
	DESIGN & ENGINEERING	$92,140	$46,090
	PRE-CONSTRUCTION ACTIVITIES	$23,040	$11,520
	CONSTRUCTION MANAGEMENT	$23,040	$11,520
	MOBILIZATION & COMMISSIONING	$46,070	$23,040
	ADMIN & SALARY	$23,040	$11,520
	CONTINGENCIES	$115,180	$57,610
	SUPPORTING COSTS SUBTOTAL	**$322,510**	**$161,300**
	TOTAL CAPEX **Per vehicle** **Per charging port**	**$783,230** **$78,300** **$111,900**	**$391,740** **$39,200** **$78,400**
ANNUAL OPEX	**ROUTINE MAINTENANCE**	$1,260	$970
	CORRECTIVE MAINTENANCE	$300	$300
	SOFTWARE LICENSING	$1,200	$1,200
	NETWORKING FEES	$1,020	$1,020
	POTENTIAL KWH FEE	$1,300	$1,300
	ELECTRICITY EXPENSES	$53,560	$38,080
	LCFS REVENUE	-$13,390	-$9,520
	TOTAL ANNUAL OPEX **Per vehicle** **Per charging port**	**$45,250** $4,530 $6,460	**$33,350** $3,340 $6,670

BISHOP ROAD YARD – 3236 W LINE ST, BISHOP

Site Overview

The Bishop Road Yard is an unpaved vehicle yard on the western outskirts of the city of Bishop adjacent to Bishop Fire Department Station 2. The Yard consists of a metal building with a single bay door in the center of the facility and multiple smaller structures along the fence line. There is an access gate along the north fence line connected to W Line St.

Fleet Vehicles

Nineteen County fleet vehicles are domiciled at this location. This includes two light-duty, six medium-duty, ten heavy-duty, and one non-road vehicle. These vehicles consist of pickup trucks, dump trucks, snowplows, and a backhoe loader. All the vehicles domiciled at the Bishop Road Yard are operated by the Inyo County Roads Department

Fleet Parking

The Big Pine Road Yard is primarily an open dirt lot with space for parking along the eastern and western fence lines. The parking stalls are unmarked, but each row can fit approximately ten heavy-duty vehicles, giving the yard an overall capacity of twenty parking stalls. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a pole mounted transformer with unknown specifications located across W Line street to the north of the site. The utility is Southern California Edison (SCE).

There are two service panels at this facility located inside of the metal building in the center of the lot. Both panels are rated for 100 Amps, 240 Volts, single phase power. Combined, these panels provide the site with 48 kilowatts (kW) of installed capacity. There is a subpanel located on the outer wall of one of the small wooden structures. This panel is rated at 70 Amps, 240 Volts, single phase power and has a few spare breaker slots.

The site overall has between 18 and 31 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period.

The peak power demand for the twelve-month period from December 2023-December 2024 was 8 kW. Compared to the site's main service capacity of 48 kW, the highest amount of power consumed in the given year did not exceed 16% of this capacity. As such, **there is sufficient spare capacity to power some of the proposed EVSE for this site, but electrical upgrades will be required for a full buildout.**

TABLE 35: BISHOP ROAD YARD EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)
240	200	1	48	18-31	132.8

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, and existing facility electrical conditions, DKS recommends the installation of the following charging stations at this location:

- Two medium-output dual-port AC Level 2 charging stations
- Four 22.5 kW single-port DC charging stations

Overall mixed vehicle types and moderate daily usage of typically less than 30 miles per day mean that most of the domiciled EVs could be operated for several days before requiring a recharge. The two proposed Level 2 charging stations would provide four charging plugs rated at 9.9-11.5 kW each. The four 22.5kW single-port DC stations should be used to provide overnight charging to the heavy-duty EVs to be domiciled at this site. Given that the Bishop Road Yard currently domiciles 19 fleet vehicles, an average of three future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight one to two times per week.

The proposed chargers at this site would yield a total new load of about 132.8 KW. This amount exceeds the available capacity of the existing electrical service. Given an estimated 18-31 kW of available capacity, it is recommended to install one dual-port medium output L2 charging station on the existing electrical equipment. The remaining EVSE should be installed on a new electrical service. As such, a new 225 kVA pole-mounted utility transformer and a 600 Amp 480V single phase distribution panel should be installed. The locations of existing electrical infrastructure and the proposed chargers (in blue and red respectively) are shown below in **Figure 54** and the estimated capital and operating costs are summarized below in **Table 36**.

FIGURE 54: BISHOP ROAD YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 36: BISHOP ROAD YARD CAPEX AND OPEX

		PROPOSED EVSE INSTALLATION
VEHICLES TO BE ELECTRIFIED		19
CHARGER INSTALLATIONS		• 2 dual-port medium-output Level 2 stations • 4 single-port 22.5 kW DC stations
CAPEX	CHARGERS	$80,450
	MATERIALS	$120,000
	CIVIL/LANDSCAPING	$9,000
	PERMITS	$6,000
	UTILITY UPGRADES	$78,990
	CORE COSTS SUBTOTAL	**$294,440**
	DESIGN & ENGINEERING	$58,890
	PRE-CONSTRUCTION ACTIVITIES	$14,720
	CONSTRUCTION MANAGEMENT	$14,720
	MOBILIZATION & COMMISSIONING	$29,440
	ADMIN & SALARY	$14,720
	CONTINGENCIES	$73,610
	SUPPORTING COSTS SUBTOTAL	**$206,100**
	TOTAL CAPEX Per vehicle Per charging port	**$500,540** $26,300 $62,600
ANNUAL OPEX	ROUTINE MAINTENANCE	$1,600
	CORRECTIVE MAINTENANCE	$600
	SOFTWARE LICENSING	$1,560
	NETWORKING FEES	$1,020
	POTENTIAL KWH FEE	$3,010
	ELECTRICITY EXPENSES	$65,590
	LCFS REVENUE	-$16,400
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$56,980** $3,000 $7,120

INYO COUNTY ADMIN/ANNEX CENTER – 168 N EDWARDS ST, INDEPENDENCE

Site Overview

The Inyo County Annex is a large administrative building which is part of a complex that includes the Inyo County Courthouse and the Inyo County Administration Office. The facility houses multiple divisions from the public works department. There is a parking lot covered by a solar canopy to the south of the main building and an open dirt lot to the southwest.

Fleet Vehicles

Five County fleet vehicles are domiciled at this location. All five vehicles are light-duty, including a pickup truck, transit van, and SUVs. Each of these vehicles are assigned to a different department present in the Annex.

Fleet Parking

The dirt lot to the southwest of the Annex building is primarily used as public parking for individuals visiting the Inyo County Courthouse, making it unsuitable for the installation of fleet EVSE. The covered parking area adjacent to the dirt lot contains two rows of parking spaces which are large enough to ensure that physical space is not a constraint. The support pillars for the canopy could also be used to mount the proposed EVSE, reducing the installation cost and physical footprint of pedestal-mounted chargers.

Electrical Capacity

There is a pad mounted transformer with unmarked specifications (est. 250-500 kVA) located in the southwest corner of the covered parking area. The utility is Los Angeles Department of Water and Power (LADWP).

There are several distribution and subpanels throughout the building which could be utilized to feed proposed EVSE, either directly or via a subpanel in sight. Panel D is rated at 225 Amps, 208 Volts, 3-phase or 81 kW of installed capacity.

The site overall has between 150 and 179 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period.

Per utility bills, the peak power demand for the twelve-month period from December 2023-December 2024 was 34 kW. Compared with the site's main service capacity of approximately 300 kW, the highest amount of power consumed in the given year did not exceed 12% of this capacity. As such, **there is sufficient spare capacity to power all of the proposed EVSE for this site, so electrical upgrades would not be needed at this site.**

TABLE 37: INYO COUNTY ANNEX EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)
208	800	3	288	150-179	13.2

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, existing facility electrical conditions, and the County's preference for the inclusion of supplemental DCFC stations for opportunity charging, DKS recommends two options for the installation of the following charging stations at this location:

Proposed EVSE (With supplemental DCFC):

- One low-output dual-port AC Level 2 charging stations
- One 150 kW dual-port DCFC station

Overall light vehicle types and low daily usage of typically less than 25 miles per day mean that most of the domiciled vehicles could be driven for several days before requiring a charge. The proposed Level 2 charging station would provide two charging plugs rated at 6.6 kW each. The DCFC charging station would provide two charging plugs rated at 75 kW each. This station should be used to provide opportunity charging for vehicles that may need to rapidly recharge during their shift when they are operating in the city of Independence. Given that 3rd Street Yard currently domiciles 5 fleet vehicles, an average of three future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight one to two times per week.

The proposed chargers at this site would yield a total new load of about 163.2 kW. This amount does not exceed the available capacity of the existing electrical service. Given the ample amount of available power at this site, the proposed chargers could be installed using existing capacity without the need for a new utility service. Existing Panel D should be utilized to provide capacity for the AC Level 2 charging station. A new 208V to 480V step-up transformer and new 200A 480V panel would be required to provide capacity to the DCFC station. The locations of existing electrical infrastructure and the proposed charger (in blue and red respectively) are shown below on **Figure 55** and the estimated capital and operating costs are summarized below in **Table 38**.

For the alternative charging strategy without DCFC, the recommended EVSE at this site would yield a total new load of about 13.2 kW. This amount does not exceed the available capacity of the existing electrical service. Given the ample amount of available power at this site, the proposed chargers could be installed using existing capacity without the need for a new utility service. Existing Panel D should be utilized to provide this capacity for the AC Level 2 charging station.

FIGURE 55: INYO COUNTY ANNEX CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 38: INYO COUNTY ANNEX CAPEX AND OPEX

		PROPOSED:	ALTERNATIVE:
VEHICLES TO BE ELECTRIFIED			5
CHARGER INSTALLATIONS		• 1 dual-port low-output Level 2 station • 1 Dual-port 150 kW DCFC station	• 1 dual-port low-output Level 2 station
CAPEX	CHARGERS	$175,150	$7,080
	MATERIALS	$60,930	$17,670
	CIVIL/LANDSCAPING	$12,000	$3,000
	PERMITS	$6,000	$6,000
	UTILITY UPGRADES	$0	$0
	CORE COSTS SUBTOTAL	**$254,080**	**$33,750**
	DESIGN & ENGINEERING	$50,820	$6,750
	PRE-CONSTRUCTION ACTIVITIES	$12,700	$1,690
	CONSTRUCTION MANAGEMENT	$12,700	$1,690
	MOBILIZATION & COMMISSIONING	$25,410	$3,380
	ADMIN & SALARY	$12,700	$1,690
	CONTINGENCIES	$63,520	$8,440
	SUPPORTING COSTS SUBTOTAL	**$177,850**	**$23,640**
	TOTAL CAPEX Per vehicle Per charging port	**$431,930** $86,400 $108,000	**$57,390** $11,500 $28,700
ANNUAL OPEX	ROUTINE MAINTENANCE	$680	$390
	CORRECTIVE MAINTENANCE	$300	$300
	SOFTWARE LICENSING	$1,200	$1,200
	NETWORKING FEES	$1,020	$1,020
	POTENTIAL KWH FEE	$110	$110
	ELECTRICITY EXPENSES	$20,090	$3,190
	LCFS REVENUE	-$5,020	-$800
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$18,370** $3,670 $4,590	**$5,400** $1,080 $2,700

LONE PINE YARD – 162 N LONE PINE AVE, LONE PINE

Site Overview

The Lone Pine Yard is an unpaved vehicle yard located between N Lone Pine Avenue and N Hay Street. The Yard has a central metal building with multiple smaller storage sheds along the southern fence line. There are two entrances to the yard: one on the east side connecting to N Hay Street, and one on the west side connecting to N Lone Pine Avenue.

Fleet Vehicles

Twenty-Two County fleet vehicles are domiciled at this location. This includes five light-duty, three medium-duty, twelve heavy-duty vehicles, and two off-road vehicles, including various kinds of light and medium duty pickups, dump trucks, hauling trucks, a mower, and backhoe. All vehicles domiciled at this facility are operated by the Inyo County Roads Department.

Fleet Parking

The Lone Pine yard is on a dirt lot with no marked parking stalls. The western fence line as well as the area north of the mental building are used for heavy-duty vehicle parking. The eastern area of the yard is separated by a gate and is used for light-duty vehicle parking. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is one 25 kVA and one 37.5 kVA 240 Volt pole-mounted utility transformers located directly east of the metal building. The utility is Los Angeles Department of Water and Power (LADWP).

The main service panel is located inside of the metal building in the center of the Yard. This panel is rated for 200 Amps, 240 Volts, single phase power, providing the site with 48 kilowatts (kW) of installed capacity. There are no additional subpanels at this facility.

The site overall has between 23 and 26 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period.

The peak power demand for the twelve-month period December 2023-December 2024 was 11.64 kW during April. Compared against the site's main service capacity of 48 kW, the highest amount of power consumed in the given year did not exceed 25% of this capacity. As such, **there is insufficient spare capacity to power any of the proposed EVSE for this site, therefore electrical upgrades will be required for installation of EV chargers for fleet vehicles at this location**.

TABLE 39: LONE PINE YARD EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)	PROPOSED EVSE WITHOUT DCFC (KW)
240	200	1	48	23-26	753	153

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, existing facility electrical conditions, and the County's preference for the inclusion of supplemental DCFC stations for opportunity charging, DKS recommends two options for the installation of the following charging stations at this location:

Proposed EVSE (With supplemental DCFC):

- Two medium-output dual-port AC Level 2 charging stations
- Five 22.5 kW single-port DC charging stations
- Two 150 kW dual-port DCFC stations

Overall mixed vehicle types and moderate daily usage of typically less than 25 miles per day mean that most of the domicile vehicles can be used for two to three days before requiring a recharge. The two proposed Level 2 charging stations would provide four charging plugs rated at up to 9.9 kW each. The Level 2 charging plugs should primarily be used to charge the light and medium-duty vehicles, as well as off-road equipment at this site. The five proposed single-port 22.5 kW DC charging stations should be used for overnight charging of heavy-duty vehicles, since not all H-D EVs can accept AC chargers.

Given that the Lone Pine Yard currently domiciles 22 fleet vehicles, an average of three future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight approximately once to twice a week. The two proposed DCFC stations will provide four charging plugs rated at 150 kW each. These would provide flexibility for vehicles to rapidly recharge during a shift and maintain the readiness of mission-critical fleet EVs. The DCFC Station could also be utilized by County vehicles which may visit the Lone Pine Yard but are not domiciled there.

For the proposed strategy, the EVSE at this site would yield a total new load of about 758.5 kW. Given the limited amount of available power at this site, the proposed chargers cannot be installed on existing capacity without the need for electrical upgrades or a new utility service. The required new service should include a pad-mounted 1000 KVA 480 Volt three-phase utility transformer, a 1500 Amp 480 Volt Switchboard, a 225 kVA 480V to 208V step-down transformer, and a 600 Amp 208V three-phase panel.

For the alternative charging strategy, the EVSE at this site would yield a total new load of about 158.5 kW. Given the limited amount of available power at this site, the alternative proposed chargers still could not be installed using existing capacity without the need for electrical upgrades or a new utility service. The required new service should include a new 225 KVA utility transformer which could be pole-mounted to reduce construction costs, a 300 Amp 480 Volt three-phase distribution panel, a 225 kVA 480V to 208V step-down transformer, and a 600 Amp 208 Volt three-phase panel. The locations of existing electrical infrastructure and the proposed chargers (in blue and red respectively) are shown below in **Figure 10** and the estimated capital and operating costs with and without supplemental DCFSs are summarized below in **Table 40**.

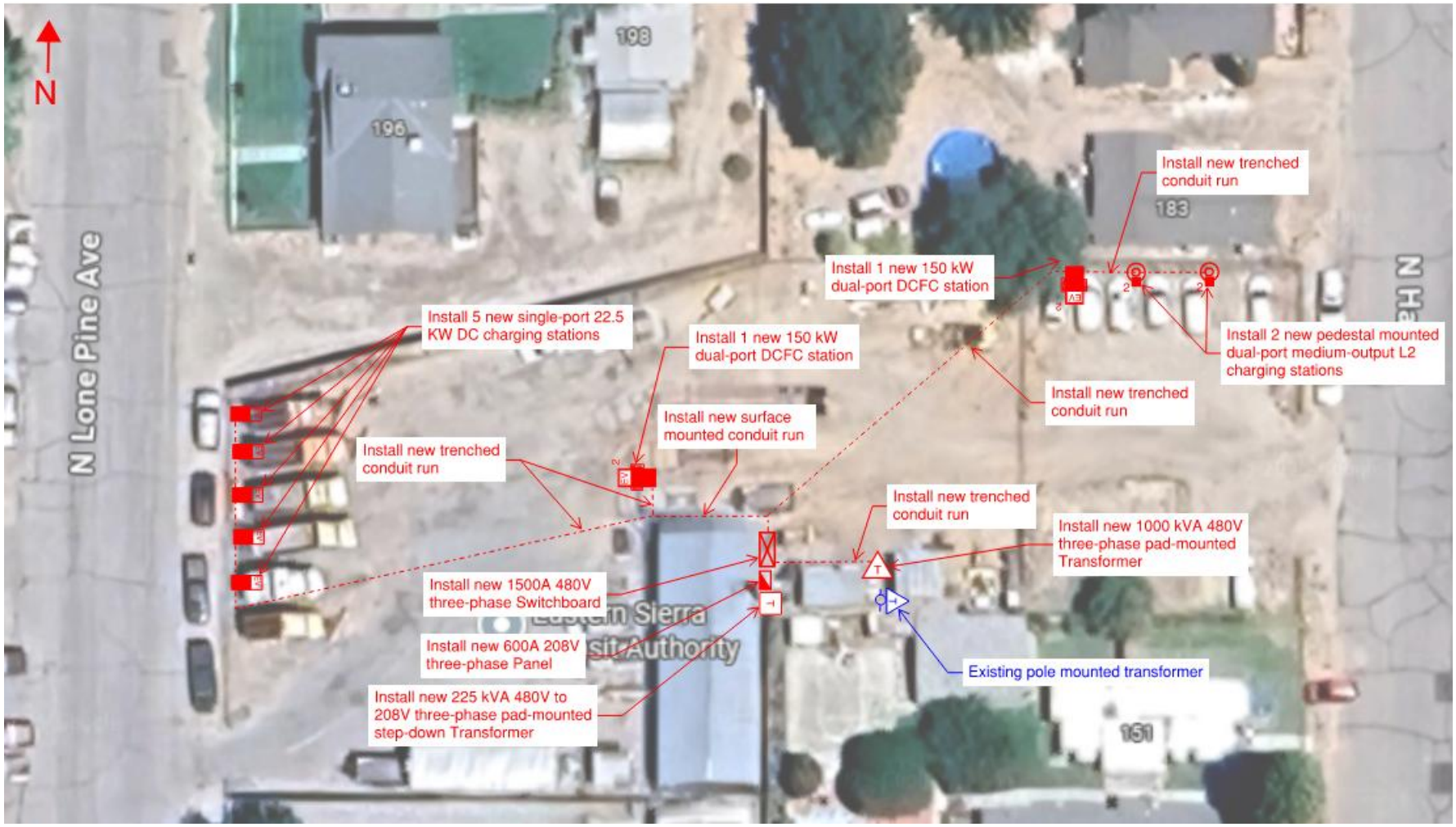


FIGURE 56: LONE PINE YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 40: LONE PINE YARD CAPEX AND OPEX

		PROPOSED:	ALTERNATIVE:
VEHICLES TO BE ELECTRIFIED		22	
CHARGER INSTALLATIONS		• 2 dual-port medium-output Level 2 stations • 5 single-port 22.5 kW DC station • 2 Dual-port 150 kW DCFC stations	• 2 dual-port medium-output Level 2 stations • 5 single-port 22.5 kW DC station
CAPEX	**CHARGERS**	$432,180	$96,030
	MATERIALS	$291,580	$205,590
	CIVIL/LANDSCAPING	$21,000	$18,000
	PERMITS	$6,000	$6,000
	UTILITY UPGRADES	$115,280	$78,990
	CORE COSTS SUBTOTAL	**$866,040**	**$404,610**
	DESIGN & ENGINEERING	$173,210	$80,920
	PRE-CONSTRUCTION ACTIVITIES	$43,300	$20,230
	CONSTRUCTION MANAGEMENT	$43,300	$20,230
	MOBILIZATION & COMMISSIONING	$86,600	$40,460
	ADMIN & SALARY	$43,300	$20,230
	CONTINGENCIES	$216,510	$101,150
	SUPPORTING COSTS SUBTOTAL	**$606,220**	**$283,220**
	TOTAL CAPEX Per vehicle Per charging port	**$1,472,260** $66,900 $113,300	**$687,830** $31,300 $76,400
ANNUAL OPEX	**ROUTINE MAINTENANCE**	$2,190	$1,790
	CORRECTIVE MAINTENANCE	$600	$600
	SOFTWARE LICENSING	$1,560	$1,560
	NETWORKING FEES	$1,020	$1,020
	POTENTIAL KWH FEE	$3,430	$3,430
	ELECTRICITY EXPENSES	$127,950	$96,990
	LCFS REVENUE	-$31,990	-$24,250
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$104,770** $4,760 $8,060	**$81,150** $3,690 $9,020

MAZOURKA ROAD SHOP – 750 S CLAY ST, INDEPENDENCE

Site Overview

Mazourka Road Shop is a partially paved vehicle yard located in the southern outskirts of Independence adjacent to the Inyo County Jail. The facility has a large central maintenance building with multiple vehicle bays and light-duty parking stalls surrounding it. The facility has a security fence with two entrances: one along the western fence line connecting to S Clay Street, and one along the southern fence line connecting to Mazourka Canyon road.

Fleet Vehicles

Nineteen County fleet vehicles are domiciled at this location. These include five light-duty, eight medium-duty, three heavy-duty vehicles, and three off-road vehicles, including SUVs, various kinds of light and medium duty pickups, a dump truck, hauling trucks, and tractors. All of the vehicles domiciled at this facility are operated by the Inyo County Roads Department.

Fleet Parking

Parking for light-duty vehicles at Mazourka Road Shop is primarily done in the marked parking stalls surrounding the maintenance building. Larger assets such as heavy-duty vehicles and off-road equipment park along the east fence line. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There are three 25 kVA pole mounted transformers located south of the facility at the intersection of Mazourka Canyon Road and S Clay Street. The utility is Los Angeles Department of Water and Power (LADWP).

The main service switchboard located on the west side of the maintenance building is rated for 600 Amps, 240 Volts, single-phase power, providing the entire site with 144 kilowatts (kW) of installed capacity. There are several distribution and subpanels throughout the building. Panels P-1 and P-2 both have many spare breaker slots which could be utilized to feed proposed EVSE.

The site overall has between 39 and 98 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period.

Per utility bills, the peak power demand for the twelve-month period from December 2023-December 2024 was 21.6 kW. Compared against the site's main service capacity of 144 kW, the highest amount of power consumed in the given year did not exceed 15% of this capacity. As such, **there is sufficient spare capacity to power some of the proposed EVSE for this site, but electrical upgrades will be required for a full buildout**.

TABLE 41: MAZOURKA ROAD SHOP EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)
240	600	1	144	39-98	137

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, and existing facility electrical conditions, DKS recommends the installation of the following charging stations at this location:

- Four medium-output dual-port AC Level 2 charging stations
- Two single-port DC Level 2 (22.5 kW) charging stations

Overall heavy vehicle types and moderate daily usage of typically less than 30 miles per day mean that most of the domicile vehicles can be used for one to two days at a time before requiring a recharge. The four proposed Level 2 charging stations will provide eight charging plugs rated at 9.9-11.5 kW each. The two 22.5kW single-port DC stations should be used to provide overnight charging to the heavy-duty vehicles domiciled at this site. Given that Mazourka Road Shop currently domiciles 19 fleet vehicles, an average of two future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight every other night.

The proposed chargers at this site would yield a total new load of about 130.9 KW. This amount exceeds the available capacity of the existing electrical service. The estimated 39-98 kW of available capacity is sufficient to install two dual-port medium output L2 charging stations on the existing electrical equipment. The remaining EVSE should be installed on a new electrical service. As such, a new 150 kVA pole-mounted utility transformer and a 600 Amp 240 Volt single phase panel should be installed. The locations of existing electrical infrastructure in blue and the proposed chargers in red are shown below in **Figure 57** and the estimated capital and operating costs are summarized below in **Table 42**.

FIGURE 57: MAZOURKA ROAD YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 42: MAZOURKA ROAD YARD CAPEX AND OPEX

		PROPOSED EVSE INSTALLATION
VEHICLES TO BE ELECTRIFIED		19
CHARGER INSTALLATIONS		• 4 dual-port medium-output Level 2 stations • 2 single-port 22.5 kW DC stations
CAPEX	CHARGERS	$67,450
	MATERIALS	$143,200
	CIVIL/LANDSCAPING	$12,000
	PERMITS	$6,000
	UTILITY UPGRADES	$67,250
	CORE COSTS SUBTOTAL	**$295,900**
	DESIGN & ENGINEERING	$59,180
	PRE-CONSTRUCTION ACTIVITIES	$14,800
	CONSTRUCTION MANAGEMENT	$14,800
	MOBILIZATION & COMMISSIONING	$29,590
	ADMIN & SALARY	$14,800
	CONTINGENCIES	$73,980
	SUPPORTING COSTS SUBTOTAL	**$207,150**
	TOTAL CAPEX Per vehicle Per charging port	**$503,050** $26,500 $50,300
ANNUAL OPEX	ROUTINE MAINTENANCE	$1,600
	CORRECTIVE MAINTENANCE	$600
	SOFTWARE LICENSING	$1,560
	NETWORKING FEES	$1,020
	POTENTIAL KWH FEE	$2,040
	ELECTRICITY EXPENSES	$60,290
	LCFS REVENUE	-$15,070
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$52,040** $2,740 $5,200

SHOSHONE ROAD YARD, 303 S HIGHWAY 127, SHOSHONE

Site Overview

Shoshone Road Yard is an unpaved vehicle yard located south of Shoshone adjacent to Shoshone Airport. The Yard has a metal structure with two vehicle bays near the center of the lot and material storage along various points of the northern fence line. The entire yard is fenced with one entrance near the southeastern corner of the yard connecting to Highway 127.

Fleet Vehicles

Nine County fleet vehicles are domiciled at this location. This includes two light-duty, three medium-duty, three heavy-duty vehicles, and one off-road vehicles, including SUVs, medium-duty pickups, hauling trucks, and a wheel loader. All of the vehicles domiciled at this facility are operated by the Inyo County Roads Department.

Fleet Parking

The Shoshone Road Yard is primarily an open dirt lot with space for parking along the eastern, western, and northern fence lines. Additional parking is available along the north side of the metal structure. The parking stalls are unmarked and intermixed with stored equipment. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a pole mounted transformer with unknown specifications located north of the facility. The utility is Southern California Edison (SCE).

The main service panel located on the north side of the central building is rated for 100 Amps, 240 Volts, single-phase power, providing the site with 24 kilowatts (kW) of installed capacity. There are no additional subpanels at the facility.

The site overall has between 11 and 17 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity that is typically available based on actual peak usage over a 12-month period.

The peak power demand for the twelve-month period from December 2023-December 2024 was 7 kW during the month of July. Compared against the site's main service capacity of 24 kW, the highest amount of power consumed in the given year did not exceed 30% of this capacity. As such, **there is not sufficient spare capacity to power any of the proposed EVSE for this site, and electrical upgrades will be required for the EVSE buildout.**

TABLE 43: SHOSHONE ROAD SHOP EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)	PROPOSED EVSE WITHOUT DCFC (KW)
240	100	1	24	11-17	362.4	62.4

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, existing facility electrical conditions, and the County's preference for the inclusion of supplemental DCFC stations for opportunity charging, DKS recommends two options for the installation of the following charging stations at this location:

Proposed EVSE (With supplemental DCFC):

- Two medium-output dual-port AC Level 2 charging stations
- One 22.5 kW single-port DC charging station
- One 150 kW dual-port DCFC station

Overall heavy vehicle types and moderate daily usage of typically less than 25 miles per day mean that most of the domicile vehicles can only be used for two to three days before requiring a recharge. The two proposed Level 2 charging stations will provide four charging plugs rated at up to 9.9 kW each. The AC Level 2 charging plugs should primarily be used to charge the light and medium-duty vehicles, as well as off-road equipment at this site. The one proposed single-port 22.5 kW DC charging station should be used for overnight charging of heavy-duty vehicles. Given that the Shoshone Road Yard currently domiciles 9 fleet vehicles, an average of two future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight approximately every other day. The proposed DCFC station will provide two charging plugs rated at 150 kW each. These would provide flexibility for EVs to rapidly recharge during a shift and maintain the readiness of mission critical vehicles. The DCFC Station can also be utilized by County fleet EVs which may visit the site but are not domiciled there.

For the proposed strategy, the EVSE at this site would yield a total new load of about 362.4 kW. Given the limited amount of available power at this site, the proposed chargers cannot be installed on existing capacity without the need for electrical upgrades or a new utility service. The required new service should include a pad-mounted 500 KVA 480 Volt three-phase utility transformer, a 600 Amp 480 Volt Switchboard, a 75 kVA 480V to 208V step-down transformer, and a 250 Amp 208V three-phase panel.

For the alternative charging strategy without DCFC, the EVSE at this site would yield a total new load of about 62.4 kW. Given the limited amount of available power at this site, the alternative proposed chargers still cannot be installed using existing capacity without the need for electrical upgrades or a new utility service. The required new service should include a new 100 KVA utility transformer which could be pole-mounted to reduce construction costs, a 150 Amp 480 Volt three-phase distribution panel, a 75 kVA 480V to 208V step-down transformer, and a 200 Amp 208 Volt three-phase panel. The locations of existing electrical infrastructure and the proposed chargers are shown below in blue and red respectively in **Figure 58** and the estimated capital and operating costs with and without supplemental DCFSs are summarized below in **Table 44**.

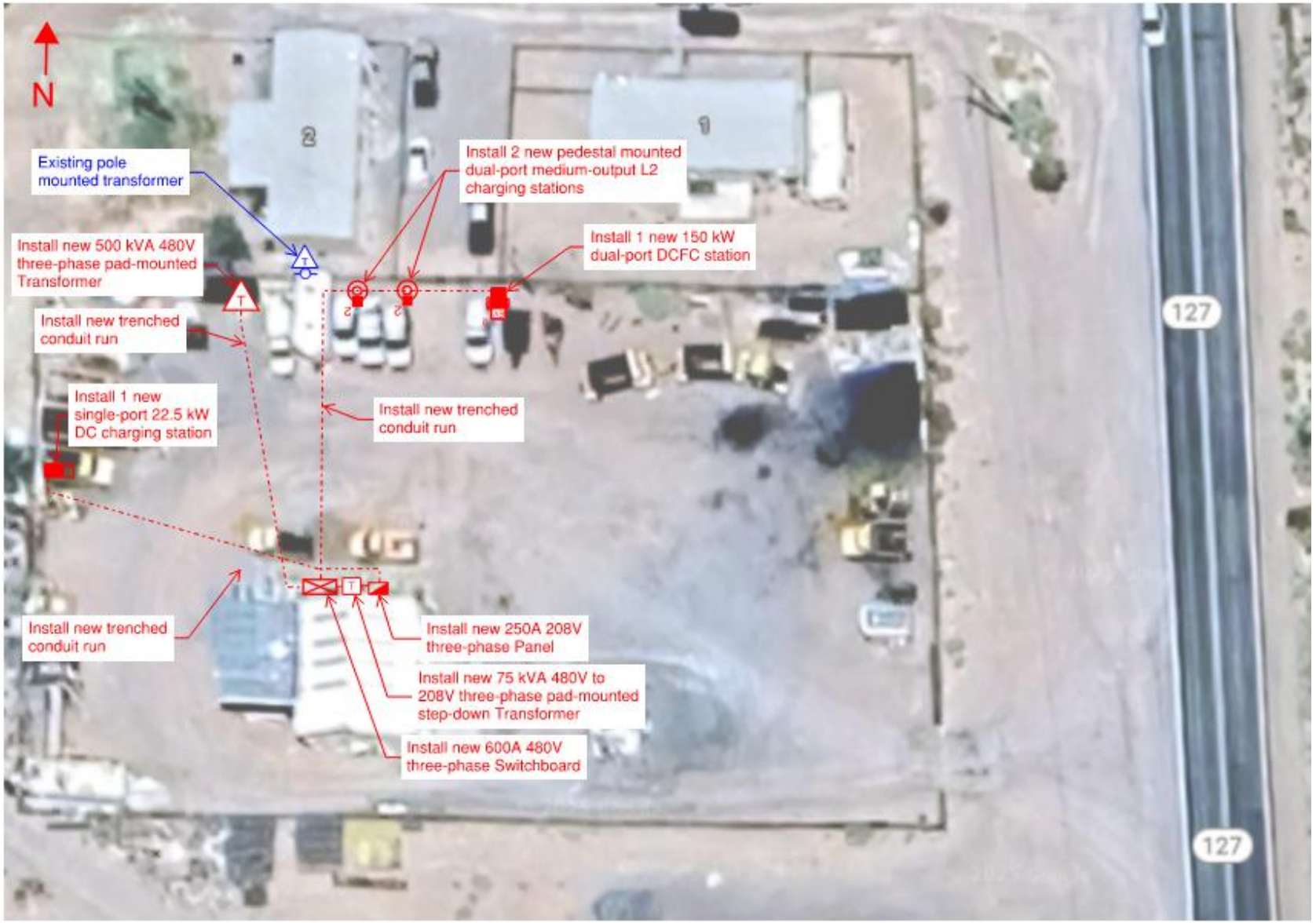


FIGURE 58: SHOSHONE ROAD YARD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 44: SHOSHONE ROAD YARD CAPEX AND OPEX

		PROPOSED:	ALTERNATIVE:
VEHICLES TO BE ELECTRIFIED		9	
CHARGER INSTALLATIONS		• 2 dual-port medium-output Level 2 stations • 1 single-port 22.5 kW DC station • 1 Dual-port 150 kW DCFC station	• 2 dual-port medium-output Level 2 stations • 1 single-port 22.5 kW DC station
CAPEX	CHARGERS	$201,800	$33,730
	MATERIALS	$155,990	$117,460
	CIVIL/LANDSCAPING	$12,000	$12,000
	PERMITS	$6,000	$6,000
	UTILITY UPGRADES	$93,560	$67,250
	CORE COSTS SUBTOTAL	**$469,350**	**$236,440**
	DESIGN & ENGINEERING	$93,870	$47,290
	PRE-CONSTRUCTION ACTIVITIES	$23,470	$11,820
	CONSTRUCTION MANAGEMENT	$23,470	$11,820
	MOBILIZATION & COMMISSIONING	$46,940	$23,640
	ADMIN & SALARY	$23,470	$11,820
	CONTINGENCIES	$117,340	$59,110
	SUPPORTING COSTS SUBTOTAL	**$328,560**	**$165,500**
	TOTAL CAPEX Per vehicle Per charging port	**$797,910** $88,700 $114,000	**$401,940** $44,700 $80,400
ANNUAL OPEX	ROUTINE MAINTENANCE	$1,260	$970
	CORRECTIVE MAINTENANCE	$300	$300
	SOFTWARE LICENSING	$1,200	$1,200
	NETWORKING FEES	$1,020	$1,020
	POTENTIAL KWH FEE	$670	$670
	ELECTRICITY EXPENSES	$16,630	$16,630
	LCFS REVENUE	-$4,160	-$4,160
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$16,920** $1,880 $2,420	**$16,620** $1,850 $3,330

WYE ROAD – 218 WYE RD, BISHOP

Site Overview

The Wye Road AG facility, also known as the George Milovich Agricultural maintenance facility, is located in the northern outskirts of the city of Bishop. The facility consists of a large metal building with two vehicle bays and parking stalls lining the western, eastern, and southern fence line. There is one entrance gate at the north end of the facility connecting to Wye Road.

Fleet Vehicles

Nineteen County fleet vehicles are domiciled at this location. This includes twelve light-duty and seven medium-duty vehicles including a SUV, light and medium-duty pickups, and a hauling truck. All of the vehicles domiciled at this facility are operated by multiple departments including the Water Department and Parks and Rec.

Fleet Parking

The main building is surrounded on the south and west by an open-air paved asphalt parking lot with 25 striped stalls for employees and fleet vehicles. The area east of the main building is paved with no marked parking spots. This area is used for equipment storage and parking for medium duty vehicles. Physical space is not a constraint, and the fleet parking areas should be able to accommodate the physical footprint of the proposed EVSE with minimal disruption from construction or loss of parking stalls.

Electrical Capacity

There is a pole-mounted transformer with unknown specifications located northeast of the facility across Wye Road. The utility is Southern California Edison (SCE).

The main service panel located on the inside of the central building is rated for 225 Amps, 240 Volts, single-phase power, providing the site with 54 kilowatts (kW) of installed capacity. There are no additional subpanels at the facility.

The site overall has between 9 and 26 kW of spare capacity available for future loads. The low end of the range is a conservative estimate under an unlikely scenario in which all existing loads are running simultaneously. The high end of the range represents capacity under a more realistic scenario in which approximately 60% of the loads are active.

The peak power demand for the previous year was not able to be determined due to a lack of utility data. Examination of the electrical panel shows multiple spare breaker slots which could be used to supply power to the proposed EVSE. As such, **it is likely there is sufficient spare capacity to power some of the proposed EVSE for this site, but electrical upgrades will be required for the EVSE buildout**.

TABLE 45: WYE ROAD EXISTING ELECTRICAL CAPACITY AND FUTURE EVSE LOAD

VOLTS	AMPS	PHASE	MAX INSTALLED CAPACITY (KW)	SPARE CAPACITY (KW)	PROPOSED EVSE (KW)
240	225	1	54	9-26	46

EVSE Recommendations

Based on review of the existing fleet mix, the projected fleet vehicle energy demands, and existing facility electrical conditions, DKS recommends the installation of the following charging stations at this location:

- Two medium-output dual-port AC Level 2 charging stations

Overall light vehicle types and low daily usage of typically less than 20 miles per day mean that most of the domicile vehicles can be used for several days at a time before requiring a recharge. The two proposed Level 2 charging stations will provide four charging plugs rated at 11.5 kW each. Given that the Wye Road AG Facility currently domiciles 19 fleet vehicles, an average of five future fleet EVs would share each available charging plug, meaning that each EV would be able to get a full charge overnight once a week.

The proposed chargers at this site would generate a total new load of about 46 KW. This amount exceeds the available capacity of the existing electrical service. The estimated 9-26 kW of available capacity is sufficient to install one dual-port medium output L2 charging station on the existing electrical equipment. The remaining EVSE should be installed on a new electrical service. As such, a new 37.5 kVA pole-mounted utility transformer, and a 150 Amp 240 Volt single phase panel should be installed. The locations of existing electrical infrastructure and the proposed chargers are shown below (in blue and red respectively) in **Figure 59** and the estimated capital and operating costs are summarized below in **Table 46**.

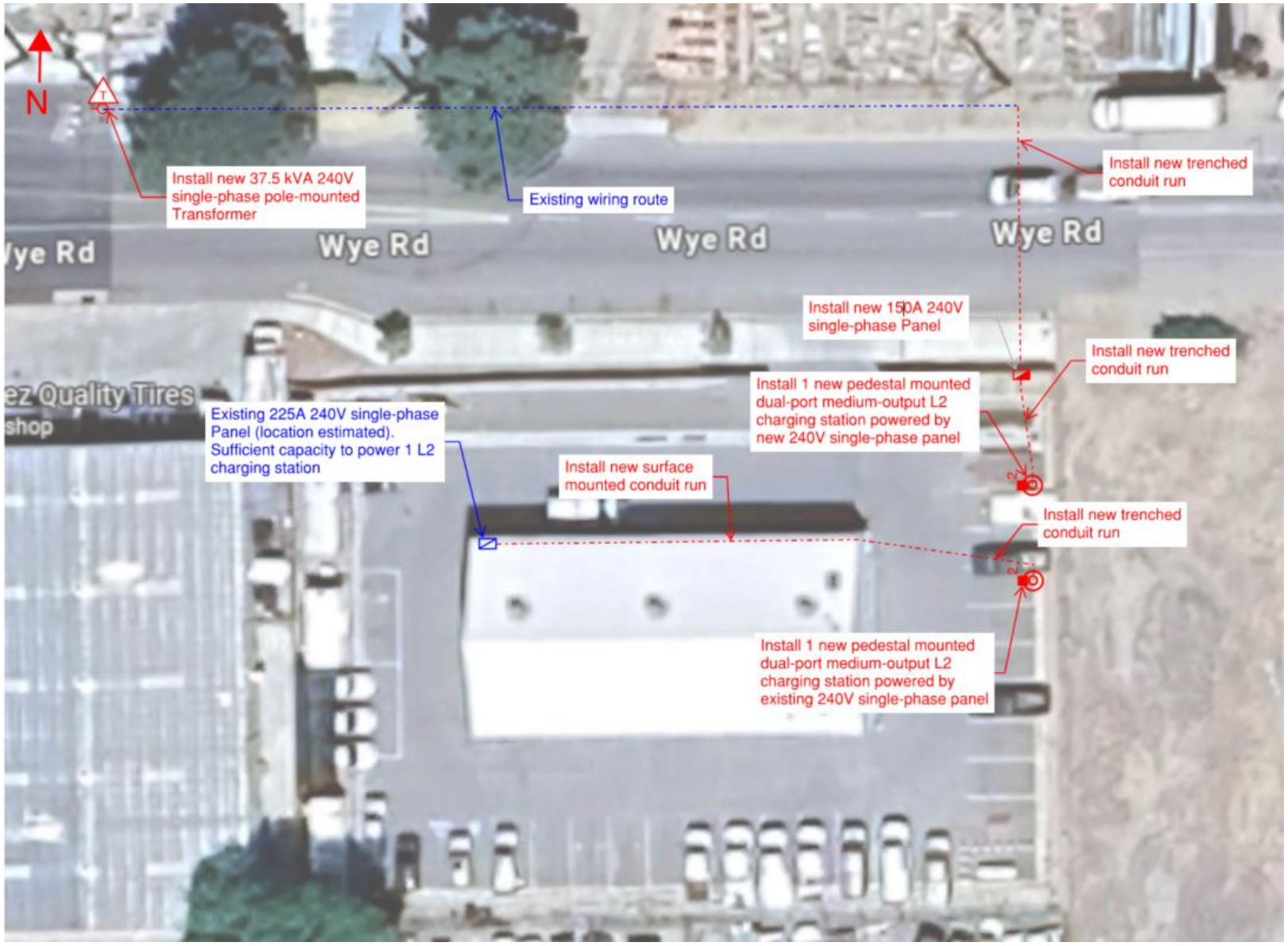


FIGURE 59: WYE ROAD CONCEPTUAL DRAWING PROPOSED EVSE

Estimated Capital and Operating Expenditures

TABLE 46: WYE ROAD CAPEX AND OPEX

		PROPOSED EVSE INSTALLATION
VEHICLES TO BE ELECTRIFIED		19
CHARGER INSTALLATIONS		• 2 dual-port medium-output Level 2 stations
CAPEX	CHARGERS	$18,150
	MATERIALS	$64,850
	CIVIL/LANDSCAPING	$3,000
	PERMITS	$6,000
	UTILITY UPGRADES	$67,250
	CORE COSTS SUBTOTAL	**$159,250**
	DESIGN & ENGINEERING	$31,850
	PRE-CONSTRUCTION ACTIVITIES	$7,960
	CONSTRUCTION MANAGEMENT	$7,960
	MOBILIZATION & COMMISSIONING	$15,930
	ADMIN & SALARY	$7,960
	CONTINGENCIES	$39,810
	SUPPORTING COSTS SUBTOTAL	**$111,470**
	TOTAL CAPEX Per vehicle Per charging port	**$270,720** $14,300 $67,700
ANNUAL OPEX	ROUTINE MAINTENANCE	$680
	CORRECTIVE MAINTENANCE	$300
	SOFTWARE LICENSING	$1,200
	NETWORKING FEES	$1,020
	POTENTIAL KWH FEE	$680
	ELECTRICITY EXPENSES	$16,900
	LCFS REVENUE	-$4,220
	TOTAL ANNUAL OPEX Per vehicle Per charging port	**$16,560** $870 $4,140

APPENDIX G. CHARGING INFRASTRUCTURE COST ESTIMATION METHODOLOGY

CAPITAL EXPENDITURE ESTIMATES

This methodology outlines DKS Associates' approach to estimating capital expenditures (CAPEX) for electric vehicle supply equipment (EVSE) deployment, encompassing both public and fleet charging infrastructure. The framework is organized into Core Costs and Supporting Costs, with clearly defined categories designed to be as mutually exclusive as possible with minimal overlap.

CAPEX estimates are developed based on research, vendor price lists, contractor input, recent project experience, and nationally available benchmarks. The figures are planning-level estimates intended to support feasibility studies, grant applications, and early design phases.

CORE COST CATEGORIES

1. EVSE Hardware

This category captures the cost of procuring and installing the charger units themselves along with associated auxiliary equipment. These items enable the core charging functionality and vary depending on the location, vehicle type, and use case (public vs. fleet).

Charger Types Considered:

- Level 2 AC Chargers
  - Low-output (5.8–7.7 kW): e.g., ChargePoint CT4000
  - Medium-output (9.6–11.5 kW): e.g., ChargePoint CPF50
  - High-output (14.4–19.2 kW): e.g., ChargePoint CP6000
- Level 2 DC Chargers (12–24 kW): e.g., WallBox Quasar 2, ABB Terra DC Wallbox
- DC Fast Chargers (75–500 kW): e.g., ChargePoint Express Plus
- Megawatt Chargers (750–1000 kW): e.g., ChargePoint MCS, typically for heavy-duty fleet applications

Auxiliary Equipment (if applicable):

- Pedestals and anchoring systems
- Cable management systems
- Credit card readers (public use)
- Load management hardware
- IT/communications gear (routers, switches, access points)

Note: Extended warranties, modifications, and custom branding are excluded from base hardware costs.

2. Materials and Electrical Equipment

This category includes the physical infrastructure needed to support EVSE installation, aside from the chargers themselves. These materials are generally procured by contractors and vary by site layout and code requirements.

Includes:

- Conduit (PVC, EMT, rigid), condulets, and fittings
- Conductors and wiring
- Pull boxes (flush-mounted or surface-mounted)
- Foundations for chargers, step-down transformers, switchgear, and service panels
- Step-down transformers
- Electrical switchgear, service panels, subpanels, and breakers
- Bollards, wheel stops
- Signage and pavement striping (including ADA compliance) (consider moving to civil)

3. Civil Work

Costs required to support construction but not directly part of electrical installation or materials. Covers earthwork and surface-level construction activities required to install underground conduits, secure equipment, restore the site post-installation, and ADA requirements.

Includes:

- Landscaping and Hardscaping
- Trenching, directional boring, core drilling
- Demolition or removal of surface materials
- Site restoration:
  - Backfill (asphalt, concrete, gravel, soil)
  - Pavement restriping (excluding new EV stall striping)
  - Minor sidewalk and curb repairs
- ADA requirements (if applicable):
  - Accessible stall(s), access aisle, signage, and ramps

4. Permitting

Each local authority having jurisdiction (AHJ) mandates electrical permits for installation of EV chargers and related civil work. DKS uses a national average estimate of $6,000 per site that includes both AHJ's fees and the contractor's labor to handle permitting. While the exact portion of the AHJ's fees vary, these fees may be waived for city-owned projects. This fee may change with the appropriate contingency factor applied based on site size and complexity.

5. Utility Fees:

- Utility-side electrical upgrades and design
- New or upgraded service connections
- Transformer replacements
- Load approval processes

SUPPORTING COST CATEGORIES (% OF CORE COSTS)

6. Design & Engineering – 20%

These costs encompass site-specific professional services required to prepare for construction. This includes:

- Electrical, civil, and structural engineering
- Site layout and system integration
- Permitting documentation (plan sets, load calcs, conduit schedules, one-line diagrams, spec sheets)
- Utility coordination and service planning

7. Pre-Construction Services – 5%

Covers preliminary work required to validate a site before full-scale mobilization. These tasks help de-risk the project.

Includes:

- Site walks and feasibility assessments
- Procurement planning
- Environmental review and clearances
- Soil testing and geotechnical investigations
- Contract execution and coordination with stakeholders

8. Construction Management – 5%

Professional oversight fees paid to general contractors or construction managers to administer project execution, ensure compliance, and coordinate subcontractors. Responsibilities may include:

- Project scheduling
- Electrical and civil subcontractor coordination
- Safety oversight
- Cost control and reporting
- Issue resolution and inspections

9. Mobilization & Commissioning – 10%

One-time setup costs associated with preparing the site and crew for construction and post-installation testing and validation to ensure the system performs according to specifications. This is critical for both public-facing and fleet infrastructure.

Includes:

- Transportation of equipment and materials to site
- Setup of construction trailers or mobile offices
- Establishing temporary utilities

- Fencing, signage, and security measures
- Utility energization and interconnection
- EVSE functional testing and power draw verification
- Charger-to-vehicle testing
- Software and network configuration
- Integration with back-end management systems

11. Administrative Costs – 5%

Covers necessary non-technical project overhead incurred during development and implementation.

Includes:

- Legal review and contract administration
- Insurance and bonding (performance bonds, general liability, etc.)
- Project office overhead and internal administrative labor

12. Contingency – 25-35%

A mark-up has been added to subtotal of Core Cost categories in order to account for unexpected costs and overruns. The following contingencies apply by site size and complexity:

- Small/basic (10 or less Level 2 chargers; no DCFCs; no utility upgrades): 25%
- Medium/typical (10-15 L2s; 1-2 DCFCs; moderate utility upgrades): 30%
- Large/complex (More than 15 L2s; more than 3 DCFCs; new utility service): 35%

Assumptions and Limitations:

- All estimates are expressed in 2025 USD and reflect general market conditions for California and the western U.S.
- Costs do not include incentives, rebates, or tax credits.
- The project team strives to align with industry standard costing assumptions but recognizes that local site conditions, labor markets, and regulatory variances may influence final costs.
- Inflation escalation are not included.

OPERATIONS & MAINTENANCE EXPENDITURE ESTIMATES

To estimate the operating and maintenance expenses (OPEX) the County will have to cover for its future fleet charging infrastructure, various cost categories were considered as described in the following.

MAINTENANCE

Routine maintenance

- Simple, small-scale activities (usually requiring only minimal skills or training) associated with regular (weekly or monthly) and general upkeep of charging stations against normal wear and tear. For example:
  - Resetting the WiFi router or cellular gateway (if needed)
  - Resetting a breaker (if needed)
  - Cleaning the station, incl. checking the connector for any debris lodged in between the pins
  - Potential snow and trash removal
  - Labor involved from on-site staff
- % of depreciation scales down with higher numbers of chargers, as a decreasing marginal cost to service each additional charger onsite can be expected
  - Sites with less than 5 charging stations: 33% of annual depreciation*
  - Sites with 5-9 charging stations: 25% of annual depreciation*
  - Sites with 10-19 charging stations: 15% of annual depreciation*

  **assuming DCFCs have the annual depreciation of Level 2s (a DCFC's routine maintenance needs don't differ from those of Level 2 stations to the same extent as the hardware cost difference would suggest)*

Preventative maintenance

This would include remote monitoring, detection, correction, and prevention of incipient failures on the charging stations, before they become actual or major failures. Since this is not typically provided as a separate service by charging providers, it is assumed that such expenses are covered under the "Corrective maintenance" category.

Corrective maintenance

- Extended warranty for potentially necessary repair work, truck rolls, etc., estimated at $300 per instance

EXPENSES INCURRED AT THE COUNTY ITSELF

Vandalism and insurance

It was assumed that any potential vandalism is covered by the County's insurance policy.

Staffing

It was assumed that potential staffing needs include general management of chargers, training, maintenance coordination, as well as vehicle rotation if applicable. The County may assign a staff member to serve as the primary caretaker of the fleet charging infrastructure at each site. This employee would need modest training by the charging vendor on the use of their hardware and backend software. That person's duties may include occasional checks, cleaning, and general upkeep of charging stations as well as coordinating with the charging station vendor on occasions

of chargers being down for technical issues. As such, access to a computer for using the charger management system will be necessary. Any such costs are assumed to be covered under "Routine maintenance" and vary from $400 to $2,200 per year and site, depending on the site and the charging infrastructure installed. It is not anticipated that the County would need to allocate a dedicated full-time employee (FTE) or even 0.5 FTE to cover these duties.

EXPENSES OWED TO THE CHARGING PROVIDER

Licensing fees (for software/load management)

- To use charging software, typically includes a load management setup
- Estimated at roughly $100-$200 per site per month, based on scope and complexity (based on information from charging providers)
- Sites with less than 5 charging stations: $100/month
- Sites with 5-9 charging stations: $130/month
- Sites with 10-19 charging stations: $170/month

Networking fees

- For internet connection (WiFi/Ethernet or cellular gateway), assumed to be ~$85/month per site

Potential kWh fee

- Revenue sharing is required by some charging station providers. It can e.g. be used as a way for the provider to cover potential credit card processing fees.
- Assumed to be 1 ct/kWh dispensed by the chargers, with the total annual kWh dispensed by chargers at each site determined by the projected fleet energy demand.

ELECTRICITY EXPENSES

General notes:

- Electricity rates are estimated using the local utility's rate structure for general industrial, commercial, or municipal utility customers.
- Depending on the local utility's rates, demand charges can make up for a large share of the total projected electricity expenses.

Utility-specific rate structures

- **Southern California Edison (SCE):**
  - Overview: SCE offers pricing schedules TOU-EV-7, TOU-EV-8, and TOU-EV-9 for customers operating separately-metered EV charging infrastructure at non-residential premises.
  - Demand-charges: When first launched in 2019, the TOU-EV-7/8/9 rates had demand charges ($ per peak kW power demand) set to $0 until March 1, 2024, with a phase-in beginning after that date. However, more recently, in SCE's 2025 General Rate Case Phase 2 filing, SCE proposed to keep TOU-EV-8 and TOU-EV-9 "energy-only" (i.e. pay on a per-kWh basis) through the end of 2029 and start a five-year demand-charge phase-in on January 1, 2030 (pending CPUC approval). For this reason, demand chargers at Inyo County sites in SCE

territory are currently not considered. The County should carefully monitor the phase-in of demand charges as it may affect future electricity expenditure in ways not reflected in the estimates developed in this planning project.

- Time-of-use (TOU) periods: The TOU-EV-7/8/9 rates are based on varying per-kWh energy charges in different periods of the day, as depicted in **Figure 60**.

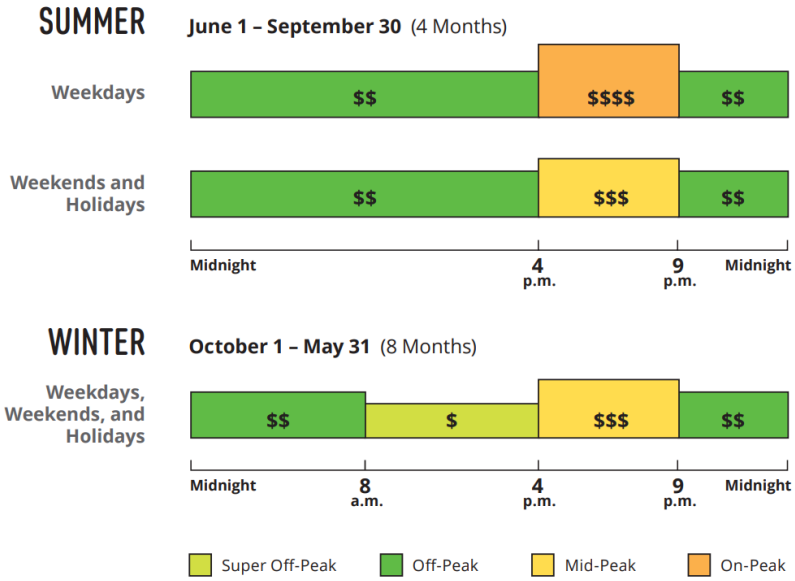


FIGURE 60: SCE TIME-OF-USE (TOU) PERIODS

- < 20 kW site demand: TOU-EV-7
  - None of Inyo County's sites will fall under this demand group, so rate details are not listed here.
- 20-500 kW site demand: TOU-EV-8
  - Base charge: $218.98/month ($260.05 customer charge, $41.07 EV submeter credit)
  - Energy charge:
    - Summer:
      - On-peak: $0.32398/kWh
      - Mid-peak: $0.32398/kWh
      - Off-peak: $0.16656/kWh
      - The OPEX estimates provided for each site assume 30% of charger usage during on-peak, 10% during mid-peak, and 60% during off-peak periods. This results in an effective *summertime* energy rate under TOU-EV-8 of about $0.2295/kWh.
    - Winter:
      - Mid-peak: $0.32398/kWh
      - Off-peak: $0.16656/kWh

        - Super-off-peak: $0.09402/kWh
        - The OPEX estimates provided for each site assume 30% of charger usage during mid-peak, 50% during off-peak, and 20% during super-off-peak periods. This results in an effective *wintertime* energy rate under TOU-EV-8 of about $0.1993/kWh.
      - Across a full year, SCE's rate schedules average to about $0.2094/kWh based on the assumed split of charger usage across the different TOU periods.
    - Demand charge:
      - None (see discussion above)
  - >500 kW site demand: TOU-EV-9
    - Base charge: $511.90/month (all customer charge, no EV submeter credit)
    - Energy charge:
      - Summer:
        - On-peak: $0.28298/kWh
        - Mid-peak: $0.28298/kWh
        - Off-peak: $0.13257/kWh
        - The OPEX estimates provided for each site assume 30% of charger usage during on-peak, 10% during mid-peak, and 60% during off-peak periods. This results in an effective *summertime* energy rate under TOU-EV-9 of about $0.1955/kWh.
      - Winter:
        - Mid-peak: $0.28298/kWh
        - Off-peak: $0.13257/kWh
        - Super-off-peak: $0.08507/kWh
        - The OPEX estimates provided for each site assume 30% of charger usage during mid-peak, 50% during off-peak, and 20% during super-off-peak periods. This results in an effective *wintertime* energy rate under TOU-EV-9 of about $0.1682/kWh.
      - Across a full year, SCE's rate schedules average to about $0.1773/kWh based on the assumed split of charger usage across the different TOU periods.
    - Demand charge:
      - None (see discussion above)
  - Reference: SCE General Service & Industrial Rates
- **Los Angeles Department of Water & Power (LADWP):**
  - Overview: LADWP offers rate schedules EVA1, EVA2, and EVA3 under the "Electric Vehicle Commercial Charging Service (Pilot)" for separately metered commercial EV charging. These schedules are available to non-residential customers already on general service and require a dedicated time-of-use meter for EV charging only (no co-metering with other loads, and no customer self-generation or NEM on these meters).
  - Demand charges: EVA1/2/3 include demand charges. Each schedule has:
    - An Annual Demand Charge ($/kW-year) based on the highest demand in the last 12 months, with a minimum billed demand of 4 kW for EVA1 and 30 kW for EVA2/EVA3.

- A Monthly Demand Charge ($/kW-month) based on the maximum demand measured during the billing month.
- Both components are added up for a total demand charge.

- Time-of-use (TOU) periods:
  - Peak Period: 4:00 p.m. - 9:00 p.m., Monday through Friday.
  - Mid Peak Period: 7:00 a.m. - 4:00 p.m., Monday through Friday, and 9:00 p.m. - 11:00 p.m., Monday through Friday.
  - Off Peak Period: 11:00 p.m. - 7:00 a.m., Monday through Friday, and all day Saturday and Sunday.
- < 30 kW site demand: EVA1
  - Base charge: $15.82/month
  - Energy charge:
    - Peak: $0.30425/kWh
    - Mid-peak: $0.23490/kWh
    - Off-peak: $0.19355/kWh
    - The OPEX estimates provided for each site assume 25% of charger usage during peak, 25% during mid-peak, and 50% during off-peak periods. This results in an effective energy rate under EVA1 of about $0.2316/kWh.
  - Demand charge: $5.56/peak kW (sum of $2.97/peak kW Annual Demand Charge and $2.59/peak kW Monthly Demand Charge)
- > 30 kW site demand: EVA2
  - Base charge: $102.92/month
  - Energy charge:
    - Peak: $0.33925/kWh
    - Mid-peak: $0.24997/kWh
    - Off-peak: $0.21626/kWh
    - The OPEX estimates provided for each site assume 25% of charger usage during peak, 25% during mid-peak, and 50% during off-peak periods. This results in an effective energy rate under EVA2 of about $0.2554/kWh.
  - Demand charge: $6.88/peak kW (sum of $2.97/peak kW Annual Demand Charge and $3.91/peak kW Monthly Demand Charge)
- Reference: https://www.ladwp.com/account/customer-service/electric-rates/special-commercial-industrial-rates/electric-vehicle-commercial-charging-service-monthly-rates

POTENTIAL LOW CARBON FUEL STANDARD REVENUE

- Inyo County could leverage California's Low Carbon Fuel Standard (LCFS) to generate credits from their charging stations and thus revenue.
- Based on DKS' previous project experience, this revenue can amount to up to a fourth (25%) of the annual electricity expenses.

CONTINGENCY

It is recommended that the County include an additional 20% contingency in OPEX estimates to cover market and price fluctuations for budgeting purposes. This contingency was not included in the shown estimates.

NOTES

The annual OPEX estimates referenced in this document refer to annually incurred costs at each specific location, considering all installed charging stations and electrified vehicles by that phase. In early years of fleet electrification with only few EVs using this infrastructure, real OPEX may be smaller due to a lower demand and electricity expenditure. Hence, the listed values are generally conservative and represent an upper estimate of the expected OPEX over time.

APPENDIX H. FUNDING OPPORTUNITIES

INTRODUCTION

Electrifying fleet vehicles and deploying chargers for public use in Inyo County can be supported by a variety of funding sources. Below is a summary of federal, state, regional, utility, and private-sector programs expected to be active through the foreseeable future. Each program summary includes who administers it, what it funds, available funding or incentives, Inyo County's eligibility, application timing, and any notable limitations. Unfortunately, funding programs are subject to economic and political changes over time including during the development of this Plan and the following description addresses the status of each funding program at the time of writing.

FEDERAL PROGRAMS

1) EPA - CLEAN HEAVY-DUTY VEHICLES GRANT PROGRAM

- *CLOSED – No additional funding rounds are expected during the current federal administration.*

2) EPA - DIESEL EMISSIONS REDUCTION ACT (DERA) GRANTS

- **Administered by:** U.S. EPA (sometimes implemented by state or local air districts).
- **Scope:** DERA is a longstanding program offering grants to retrofit, repower, or replace older diesel engines/vehicles with cleaner alternatives. It covers a broad range of on-road and off-road diesel equipment. For Inyo County 's fleet, this can include replacing diesel work trucks, construction equipment (e.g. backhoes, excavators), generators, and other diesel-powered units with zero emission equivalents or cleaner engines. Limited charging infrastructure directly associated with DERA-funded vehicle replacements may be eligible on a case-by-case basis.
- **Funding available:** Annual funding depends on federal appropriations. DERA funding continues, but federal budget reductions and shifting administration priorities may reduce availability or delay annual solicitations. In recent years, funding has been on the order of $100+ million per year, subject to annual Congressional appropriations. Grants typically cover only a portion of the project's costs. For zero-emission vehicle replacements, DERA has historically funded up to roughly 45% of the cost of the new EV and one associated charger. Some DERA-funded programs have allowed up to 65%–100% for public-sector vehicle or equipment replacements in limited cases. The remaining cost share must be covered by the applicant or other sources. While zero-emission replacement projects remain eligible, recent federal guidance and funding patterns suggests they may receive comparatively less emphasis than diesel retrofits under current federal policy.
- **Inyo County eligibility:** Inyo County's fleet is eligible for DERA funding. EPA offers DERA funding opportunities through competitive nationwide grants and sometimes via state allocations. California periodically opens DERA-funded programs in combination with other state funds. Vehicles or equipment that are being replaced must be permanently scrapped to ensure emissions reductions. To scrap a vehicle, EPA requires a hole at least 3 inches in diameter to be drilled through the engine block, and both chassis' rails cut between the front and rear axles.
- **Application timing:** DERA National Grant competitions are typically held annually. The most recent DERA grants opened in late 2023 with applications due and awards made in 2024. California may also announce DERA-funded opportunities through the California Air Resources Board (CARB). Expect application periods once per year with a few months lead time.

- **Limitations:** DERA funding is competitive and not guaranteed yearly because it depends on federal budgets. The cost-share requirement means Inyo County must plan to fund a significant portion, which could be around 55% of the cost or more. Grants are reimbursement-based and typically take some time for EPA approval. The DERA program covers a wide array of diesel reduction projects, so proposals need to emphasize cost-effective emission reductions to compete well.
- **Likelihood of Continuation:** The DERA grant program has a strong bipartisan track record of reauthorizations since 2005 and is considered one of the most cost-effective clean-air programs. It has historically enjoyed political support even in administrations less inclined to support climate action. Legally, DERA's current authorization was set to expire in 2024, but in May 2024 the U.S. Senate unanimously passed a bill to extend DERA through 2029 at $100 million per year. This suggests continued federal commitment and that the program will likely survive. However, annual funding levels still depend on appropriations. In tight budget climates, Congress could appropriate less than authorized or delay appropriations. A hostile administration could also deemphasize DERA or redirect its focus, like favoring diesel retrofits over zero emission replacements. Outright cancellation is less likely given its statutory authorization and bipartisan backing. For Inyo County's planning, DERA grants can be viewed as relatively stable throughout this decade, especially when compared to newer EV-specific programs. Inyo County should monitor reauthorization progress and be prepared for a competitive grant process. The key risk is not program termination, but potential fluctuations in available funds and timing. Overall, DERA funding is expected to remain available through 2030, supporting fleet emission reduction projects, with low risk of discontinuation barring an unforeseen collapse of federal support for clean air initiatives. Although DERA has not been singled out for funding cuts or elimination as of January 2026, the broader landscape of federal clean energy and environmental programs is experiencing significant shifts under the current administration. While DERA remains authorized, future appropriations may prioritize lower-cost diesel retrofits rather than full zero-emission replacements.

3) IRS - COMMERCIAL CLEAN VEHICLE TAX CREDIT (SECTION 45W)

- *UNAVAILABLE – The 45W clean vehicle tax credit was rescinded in 2025.*
- **Administered by:** Internal Revenue Service (IRS) under the Inflation Reduction Act.
- **Scope:** This is a federal tax credit for purchasing new electric or fuel-cell vehicles for commercial or government fleets. This incentive applies to vehicles of all sizes used in business/government. For each eligible vehicle, the credit equals 30% of the vehicle's purchase price up to a cap. The cap is $7,500 for light- and medium-duty vehicles with a gross vehicle weight rating (GVWR) under 14,000 lbs. The cap is $40,000 for heavier vehicles weighing 14,000 lbs. or more. This significantly reduces the upfront cost of fleet EVs and trucks.
- **Benefit to Inyo County:** The 45W Commercial Clean Vehicle Tax Credit was rescinded in 2025. It is no longer available for new vehicle purchases unless the vehicle was contracted and placed in service before the federal cutoff date. Another way to capture the benefit for light-duty vehicles is via leasing, whereby the lessor can take the credit and pass the savings on to Inyo County.
- **What it funded:** Before it was rescinded, the credit could be used for new battery-electric vehicles (BEVs), plug-in hybrid commercial vehicles, or hydrogen fuel cell vehicles. There are minimal restrictions on models aside from needing to be mostly for use in the U.S. and meet

certain battery size requirements. Many passenger EVs, vans, pickup trucks, and heavy trucks qualify.

- **How it applied:** Previously claimed using IRS Form 8936-B, but no longer applicable due to repeal. Credits could be received for each qualifying vehicle. This incentive was essentially always "open" as a tax formula rather than a limited fund.
- **Limitations:** The credit cannot exceed 30% of the vehicle cost, so very inexpensive vehicles might hit the 30% limit below the cap. Also, for light-duty vehicles, the separate consumer EV credit (30D) rules like North American assembly and MSRP limits do not apply to 45W, which is advantageous. Inyo County will need to ensure compliance with IRS guidance for claiming direct pay, such as registering and filing an election each tax year. Changes in tax law could occur after 2030, but as of now the credit is slated to run through 2032.
- **Status:** Fully repealed under 2025 federal legislation; no continuation expected.

4) IRS - ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY CREDIT (SECTION 30C)

- *UNAVAILABLE – The 30C charging infrastructure credit was rescinded in 2025.*

CALIFORNIA STATE PROGRAMS

1) CEC - CLEAN TRANSPORTATION PROGRAM GRANTS

- *NONE CURRENTLY – But check this source frequently.*
- Examples of past grants administered by the California Energy Commission (CEC) that Inyo County would have been eligible for include GFO-23-606 (Charging Infrastructure for Government Fleets) and the Communities in Charge program.

2) CLEAN VEHICLE REBATE PROJECT (CVRP) FOR FLEETS

- Program permanently closed as of 2024; no further fleet rebates or relaunches are anticipated.

3) CORE - CLEAN OFF-ROAD EQUIPMENT VOUCHER INCENTIVE PROJECT

- **Administered by:** CARB, implemented by CALSTART (like HVIP).
- **Scope:** CORE offers vouchers for zero emission off-road and non-road equipment. This includes a wide range of equipment that Inyo County's fleet might use, like excavators, loaders, backhoes, and mobile power units. If it is a piece of equipment not driven on public roads and there is a zero-emission version on the market, CORE may help fund it.
- **Funding available:** CORE reopened in mid-2023 with $185 million available. As of July 2025, the Landscape Equipment category closed, though new funding rounds with potentially other eligible equipment types are possible. As of November 19, 2025, heavy-duty CORE funding is also closed and new voucher applications are no longer being accepted. As a result, CORE is not currently accepting new voucher requests; future availability depends on new CARB allocations and reopening announcements. Voucher amounts are based on equipment type and can range from $30-$500k. These vouchers typically aim to cover a significant portion of the cost difference between diesel and electric versions.

- **Inyo County eligibility:** Inyo County's fleet qualifies as an equipment operator and is therefore eligible to receive funding.
- **Application timing:** CORE is run on a rolling voucher request basis until funds are exhausted. Funds are reserved when an eligible equipment order is placed through an approved dealer. This means timing is "first-come, first-served" rather than fixed deadlines. Inyo County should monitor the CORE website for funding status updates. Given California's push for zero-emission off-road equipment, additional CORE funding rounds are expected through 2030.
- **Limitations:** Vouchers are available for equipment on the eligible equipment list. Manufacturers must submit an application to be added to this list. CORE vouchers cannot be combined with other California program incentives on the same piece of equipment. Inyo County should also ensure the new technology meets daily operational needs before purchase.
- **Likelihood of Continuation:** The stability of CORE through 2030 appears favorable but depends on the same funding ecosystem as HVIP. Therefore, CORE's funding levels may shrink or cycle irregularly as State revenues fluctuate. Legally, CORE is not a permanent statutory program. It is funded by CARB's annual Clean Transportation Incentives budget which includes cap-and-trade proceeds and sometimes general funds. It requires continual budget support to remain active. CARB has allocated substantial funds to CORE over the past couple of years, and the program has often been oversubscribed. A key threat is state budget fluctuations. Any downturn in climate investments could slow CORE voucher availability. If cap-and-trade auction revenues dip or political priorities shift, CORE could face cutbacks. The state legislature and CARB have adjusted the program's funding to target small businesses and disadvantaged communities. CARB is learning from initial cycles to improve voucher redemption rates and may refine eligibility to ensure funds are used efficiently. Inyo County can be reasonably confident that CORE funding will be available each year, but it should time its grant applications strategically and be ready to apply as soon as windows open, since funds can be claimed quickly. Inyo County's fleet should consider CORE to partially fund electrifiable off-road equipment (e.g. electric backhoes, loaders, etc.), while also exploring complementary funding such as Carl Moyer grants or federal DERA funds. CORE is likely to survive through 2030 given California's broader zero emission commitments.

4) ENERGIIZE COMMERCIAL VEHICLES INFRASTRUCTURE INCENTIVES (CEC)

- **Administered by:** California Energy Commission (CEC) via CALSTART.
- *UNAVAILABLE – The Fast Track 2025 - Closed on July 15, 2025, the Drayage and Transit Set-Asides - Closed on October 2, 2025, and the Megawatt Charging System 2025 (MCS) - Closed on February 26, 2026.*
- **Scope:** EnergIIZE (Energy Infrastructure Incentives for Zero emission Commercial Vehicles) is a state-funded incentive program specifically supporting the build-out of charging and hydrogen fueling infrastructure for medium- and heavy-duty fleets. EnergIIZE is structured into funding "lanes" targeting different needs. Inyo County's fleet is not eligible for funding through the EV Jump Start Lane due to the location of its main facility, but remains eligible for funding through the following two EnergIIZE lanes:
    - **Fast Track Lane** for large, well defined, "shovel-ready" projects
    - **Hydrogen Fueling Lane** (Only if Inyo County's fleet decides to invest in fuel cell vehicles)

- **Funding available:** The EnergIIZE program total funding is $276 million (through 2026). The Fast Track Lane offers substantial grants in the hundreds of thousands of dollars range. These incentives can cover a wide array of costs: charging hardware, design and engineering, electrical upgrades, transformers, switchgear, solar canopies and energy management equipment. Up to $3 million is available for projects funded under the Hydrogen Lane.
- **Inyo County eligibility:** Inyo County's fleet is eligible for this program. EnergIIZE applications do not require an existing vehicle purchase order. Key evaluation criteria include project readiness, cost-effectiveness, and community benefit.
- **Application timing:** EnergIIZE uses staggered solicitation windows for each lane. The Fast Track Lane was the most recent funding lane to open, which began accepting applications on May 13, 2025, and remained open until July 15, 2025. This lane supports both EV charging and hydrogen refueling infrastructure projects for medium- and heavy-duty zero emission vehicles. Inyo County's fleet should be ready with "shovel ready" plans and grant writing prepared in advance. CEC often announces upcoming solicitations a few months ahead of time. Over the next five years, multiple rounds should occur, but competition is expected to remain fierce.
- **Limitations:** EnergIIZE funding is one-time per project and requires the project to meet certain readiness criteria. Due to funding limits, not all deserving projects get funded. Projects must generally commit to completion deadlines and reporting usage after installation. Funds from this program cannot be combined with other CEC charging infrastructure grants or utility make-ready programs for the same expenses. **Likelihood of Continuation:** The future prospects of the program are moderately strong through the end of the decade, though not without limitations. EnergIIZE is funded through the California Energy Commission's Clean Transportation Program (CTP), which receives revenue from AB 8 vehicle registration surcharges. In 2023, AB 8 fees were officially reauthorized through July 1, 2035, via AB 126, ensuring that core funding for the CTP will continue uninterrupted over the next decade. This legislative extension provides a stable fiscal foundation for the EnergIIZE program. However, while CTP funding is secure, actual allocations to EnergIIZE are determined annually by the CEC and may fluctuate depending on state budget conditions, competing priorities, and evolving policy goals. Recent state budget pressures have already caused delays in some ZEV infrastructure programs. Additionally, EnergIIZE was initially launched as a pilot program and may be modified or consolidated in future cycles. The program has seen strong demand, which can lead to oversubscription and the rapid exhaustion of funds when application windows open. However, California's regulations create ongoing policy pressure to fund fleet charging infrastructure. Inyo County should treat EnergIIZE as a viable funding source in the near term, especially for "shovel ready" projects.

5) HVIP - HYBRID AND ZERO EMISSION TRUCK AND BUS VOUCHER INCENTIVE PROJECT

- **Administered by:** CARB, implemented by CALSTART.
- **Scope:** HVIP is a voucher program that provides point-of-sale discounts on new zero emission medium- and heavy-duty vehicles. It is designed to buy down the cost of electric and fuel-cell trucks and buses, making them more affordable for fleets. Inyo County's fleet can leverage this program to reduce the cost of replacing many fleet vehicles with zero emission alternatives. However, vouchers are only applicable to voluntary purchases, not those mandated by regulation (e.g. Advanced Clean Fleets). Therefore, this program is particularly advantageous for accelerating ZEV purchases ahead of regulatory deadlines.

- **Funding available:** HVIP funding is allocated annually by California's state budget. In recent years, HVIP has been funded in the hundreds of millions of dollars per year. Vouchers are first-come, first-served and can range from around $10,000 for smaller class 2b-3 vans, up to $120,000+ for Class 8 heavy-duty trucks, depending on the vehicle's weight class and technology. The voucher is applied directly to the purchase price at the dealership/order, effectively reducing Inyo County's acquisition costs. HVIP remains active but with potentially lower annual funding pools and more restrictive categories due to budget compression.
- **Inyo County eligibility:** Inyo County is eligible for this program. There are no scrappage requirements, so Inyo County can get the full lifespans out of the vehicle being replaced. In some cases, funds may be stacked with other sources of funding. Inyo County would choose an HVIP-eligible vehicle model from the approved list and work with the vendor to request the voucher.
- **Application timing:** HVIP opens in funding rounds. Historically, there has been an annual launch when voucher requests can be made until funds are exhausted. These rounds have become highly competitive. Funds can be claimed within days or even hours of opening. Inyo County should anticipate annual HVIP releases, which are likely to occur through at least 2030 as California continues investing in fleet electrification. It's critical for Inyo County to be prepared to place orders as soon as the voucher window opens each year.
- **Limitations:** HVIP cannot be used on vehicles that have already received other California incentives for the same vehicle (no "double-dipping" on the vehicle's incremental cost). Also, popular voucher categories can sell out quickly, which means if Inyo County misses the window, it may have to wait for the next round. Vehicles must be on CARB's eligible list, which generally includes most major manufacturers of commercial EVs. Additionally, California's budget can influence HVIP's yearly funding. In tight budget years the program might be scaled back or temporarily paused, though significant funding is expected to continue due to state regulatory mandates pushing fleets toward zero emission.
- **Likelihood of Continuation:** The outlook for HVIP through 2030 is generally strong, but not without funding uncertainties. Politically and administratively, the program is highly supported. HVIP directly underpins California's aggressive zero-emission truck regulations, making it a critical tool to achieve mandated fleet transitions. The Newsom administration and CARB have consistently funneled significant money into HVIP, primarily using cap-and-trade auction proceeds and other dedicated clean-transportation funds. In 2022, the state committed an unprecedented multi-year budget of more than $1 billion across several years for incentives, and voucher uptake has since skyrocketed. Just this year, more than 200 vouchers worth $31 million were redeemed in a single month. Many voucher categories have waitlists. A major funding stream from vehicle registration fees under AB8 has been extended through the end of 2034. Inyo County should be ready to utilize HVIP as soon as it is available but be prepared for sporadic availability. Matching funds might become necessary if voucher amounts shrink in the future.

6) LCFS - LOW CARBON FUEL STANDARD CREDIT REVENUE

- **Administered by:** CARB, with credits generated and traded in a marketplace among fuel providers.
- **Scope:** The LCFS is not a traditional grant program. This state program creates a revenue stream for entities that operate zero emission vehicles. It incentivizes fuel producers to reduce

the carbon intensity of their fuels. Those that provide cleaner fuels generate credits that can be sold to fossil fuel suppliers. For Inyo County, this means that by charging EVs, it can earn LCFS credits and sell them for cash. If Inyo County installs and operates EV chargers, it can claim credits as an "Electricity Fuel Provider" for the kilowatt-hours delivered to vehicles.

- **Funding/revenue available:** The value of LCFS credits fluctuates within the range of $40–$60 per ton of CO_2 equivalent reduced, which translates to a few cents per kWh dispensed to a charger. In practical terms, LCFS credit revenues can offset 15-20% of the electricity costs. Over time, these credits can add up, and they directly scale with EV charging. Also, there is no fixed cap. This incentive will be available for as long as the LCFS program is in effect. The program has been extended through 2030, and extensions beyond that period are likely.
- **Process for Inyo County:** To capitalize on this, Inyo County would register as a credit generator. Typically, fleets work with a third-party service or the utility to handle credit reporting and sales. For instance, Inyo County could allow LADWP or SCE to generate credits and pass the value on or choose to separately meter and claim the credits itself or through a third party. Revenues are obtained by selling credits on the carbon market, which can be done quarterly. This is not upfront funding, but rather an operational savings/rebate that can help pay back the investment in EVs or chargers over time.
- **Limitations:** LCFS credit prices can vary and have been declining in recent years. Also, there is a bit of administrative effort to report charging data. LCFS alone will not fund the purchase of vehicles or equipment, but it improves the total cost of ownership by providing ongoing revenue to offset operating expenses once the EVs are in use.
- **Likelihood of Continuation:** Extended through 2030, the LCFS has withstood various legal and political challenges, reinforcing its stability and integration into California's climate strategy. Recent amendments have set more ambitious targets, including a 30% reduction in carbon intensity by 2030 and a 90% reduction by 2045, aligning with the state's broader climate goals. While the program provides opportunities for Inyo County to earn credits through fleet electrification, it also faces challenges such as credit price volatility, with prices fluctuating significantly in recent years. Administrative factors, including paperwork and verification processes, can also impact credit generation and revenue. Despite these challenges, the LCFS remains a robust mechanism for promoting low-carbon fuels and reducing greenhouse gas emissions in California.

STATE/LOCAL PROGRAMS

1) CARL MOYER MEMORIAL AIR QUALITY STANDARDS ATTAINMENT PROGRAM

- **Administered by:** The San Joaquin Valley Air Pollution Control District (SJVAPCD) is partnering with the Great Basin Unified Air Pollution Control District (GBUAPCD) to administer the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) in Inyo, Mono and Alpine Counties..
- **Scope:** This program provides grants to achieve extra emission reductions by upgrading or replacing older engines beyond what regulations require. It covers a broad spectrum of vehicle and equipment projects including on-road heavy-duty vehicles, off-road equipment, and more. Moyer grants can fund the purchase of new zero emission vehicles, the replacement of diesel construction equipment with electric versions, and supporting infrastructure in some cases. The

program focuses on early emissions reductions, like removing a diesel vehicle from the road years before it would normally have been retired.

- **Funding available:** Funding is allocated annually to SJVAPCD, and typically covers a percentage of project costs, often between 50% to 80% of the incremental cost of a cleaner vehicle or piece of equipment. In cases of zero emission replacements, this program can be quite generous. Projects that replace diesel engines with zero emission technology may qualify for funding covering up to 80% of the new equipment costs, contingent upon meeting cost-effectiveness criteria. Each project grant is calculated based on the reduced emissions (NOx, PM, etc.) and cost-effectiveness, so larger diesel emitters replaced by zero emission get more funding. The program also has special "Community Air Protection" funds from AB 617 that supplement funding for projects in disadvantaged communities.
- **Inyo County eligibility:** Inyo County can apply through SJVAPCD's program. Typical candidates could be the replacement of an older heavy-duty maintenance truck with an electric truck, electrifying construction equipment that operates near residential areas, or installing charging infrastructure for electric emergency response trucks. Because Inyo County's fleet vehicles and equipment contribute to regional emissions, the program can fund those reductions. Projects that replace diesel engines with zero emission technology may receive up to 80% of the new equipment cost, provided they meet cost-effectiveness criteria. To qualify, the existing engine must be operational, have sufficient remaining useful life, and be permanently destroyed to ensure the emissions benefit is realized. This program will not fund vehicles that would have been retired anyway.
- **Application timing:** SJVAPCD typically issues an annual call for Carl Moyer grant applications in the first or second quarter of the year. The process is competitive, and projects are evaluated on the basis of emissions reduction cost-effectiveness. Inyo County should prepare project ideas and check SJVAPCD's grants webpage each year. There is usually a defined application period (2–3 months) with awards announced later in the year. Unfunded eligible projects can sometimes roll over or can be applied for in the next year.
- **Limitations:** The grant amount is strictly tied to emission reductions. Very expensive projects with relatively small emission reductions benefits will not score well. Also, if a fleet is already mandated by regulation to be retired, the program will not fund that required compliance. It will only fund early or extra emissions reductions that are not mandated. Some of Inyo County 's heavy-duty vehicles still qualify because full electrification requirements are still some years away.

  Another limitation is timing. After receiving a grant, the new equipment must be operational, and the old one scrapped within a specific timeframe. Grants also cannot be combined with HVIP or CORE on the same vehicle; one must choose either the point-of-sale voucher or the grant. Coordination with SJVAPCD staff can help determine the best funding path for each item.
- **Likelihood of Continuation:** This is a long-running state incentive program that funds the replacement or retrofit of polluting heavy-duty engines with cleaner technology. While not exclusively an electrification program, it can support zero emission vehicle purchases. Carl Moyer is one of the most stable funding programs in California's clean transportation arsenal. It was created in 1998 and has been continuously reauthorized. In 2022, the legislature extended the program's dedicated funding through 2034, reflecting strong legislative intent to keep it running. As a result, roughly $50 million statewide is available each year, which is generally supplemented by local air district funds. This is essentially locked-in money not subject to

annual political debate. Politically, the Carl Moyer Program enjoys support across party lines because it directly targets criteria air pollutants (NOx, diesel PM) in communities, which is a health issue as much as a climate issue. CARB has adjusted the program over time to focus on projects that achieve surplus emissions reductions beyond regulations. For Inyo County's planning, the Carl Moyer Program can be considered a reliably available funding source through 2030 for qualifying projects. Funding cycles and criteria are managed by SJVAPCD, so Inyo County should align its proposals with local priorities such as replacing older diesel vehicles.

UTILITY PROGRAMS

1) SOUTHERN CALIFORNIA EDISON'S (SCE) CHARGING INFRASTRUCTURE AND REBATE PROGRAM, AKA CHARGE READY (UTILITY INFRASTRUCTURE & INCENTIVES)

- *Charge Ready applications will be accepted through June 30, 2026 or until all funds are allocated so Inyo County should act fast.*
- **Administered by:** SCE under California Public Utilities Commission approval.
- **Scope:** This program offers step-by-step assistance for infrastructure upgrades and installation and provides the necessary infrastructure to support the installation of EV charging infrastructure at low- to no-cost to program participants..
- **Incentives available:** SCE offers a variety of electromobility incentives for SCE ratepayers including rebates for purchasing EVs, rebates for homeowners to upgrade their electrical panels to support EV charging, and incentives for smart residential charging. By funding utility and customer-side of the meter distribution infrastructure upgrades, SCE's Charging Infrastructure and Rebate (aka Charge Ready) Program is most relevant to the purpose of this Plan. This program is comprised of four sub-programs: 1) Direct Current Fast Charging (DCFC) Program; 2) New Construction Rebate Program; 3) Small Site Rebate Program, and; 3) Charge Ready Turn-Key Installation. These share two primary features: SCE will design, construct, and install the necessary infrastructure on both the utility-side and customer-side of the electric meter, and; customers have the option to design, purchase, and install the customer-side of the infrastructure work.
- **Inyo County eligibility:** This program is for multi-family properties, commercial buildings (offices, retail, etc.), and the public sector. Inyo County and others implementing this Plan are eligible for this program. Requirements include installation of at least four EV charging station ports, operate and maintain the EV charging equipment for a 10-year duration. Additionally, multi-family housing properties located in a designated qualifying disadvantaged communities can apply are eligible for an additional Maintenance & Networking Rebate to help cover the cost of purchasing and managing the EV charging equipment.
- **Process and timing:** This program is still open but is expected to close on June 30, 2026 or as soon as funds become exhausted.
- **Limitations:** Participants are required to install four or more EV charging station ports, operate and maintain the EV charging equipment for a 10-year duration.

  These chargers must have separate dedicated metering to measure EV charging station load and served by a Time-Of-Use (TOU) rate plan and enroll in a qualifying Demand Response program.

The charging equipment must be equipped with a network service and the related usage and pricing information will be shared with SCE.

- **Likelihood of Continuation:** SCE has been a leading utility in terms of incentivizing electromobility. The DCFC program application window is currently closed. Additional application windows will open as needed.

PRIVATE SECTOR FUNDING AND FINANCING SOURCES

In addition to government and utility programs, Inyo County can consider alternative financing models offered by the private sector to support fleet electrification. These models can complement the above incentives by addressing upfront costs and operational management.

1) LEASING AND LEASE-PURCHASE AGREEMENTS

- Instead of buying EVs outright, Inyo County could lease vehicles from vendors or financial institutions. Many auto manufacturers and third-party lessors offer lease deals where they capitalize on federal tax credits (like the former $7,500 consumer EV credit) and pass those savings on in the form of reduced payments.
- Leasing converts the upfront purchase into a series of manageable payments, and for public agencies, lease-purchase (often called "municipal leasing") arrangements can be structured so that Inyo County owns the asset at the end for a nominal fee. This approach can be useful for expensive medium- and heavy-duty EVs as well. Some companies specialize in leasing electric trucks and buses to public agencies, often bundling maintenance in the contract. The key benefit is avoiding a large one-time capital expense and instead paying over time out of the operating budget.

2) FLEET-AS-A-SERVICE (FAAS) / FULL-SERVICE LEASING

- Some providers offer "fleet electrification as a service" where the provider delivers a turnkey solution. They will procure the EVs, set up and manage the charging infrastructure while Inyo County pays a monthly and/or per-mile fee. In this model, much of the performance risk is on the provider. For example, a company might install chargers at an Inyo County site at its own cost and then sell Inyo County electricity or charge a service fee over a contract term. Another example is a provider offering electric trucks on a subscription basis (including replacement vehicles if one is down for maintenance). This can simplify deployment, though total costs over the long run may be higher due to the convenience and risk transfer provided. It is an option to consider for pilot projects or where in-house expertise is limited.

3) ENERGY SERVICE CONTRACTS AND PERFORMANCE CONTRACTING

- Inyo County could potentially incorporate EV infrastructure into an energy performance contract. Energy Service Companies (ESCOs) sometimes include fleet electrification in broader sustainability projects that might also include installing solar panels, battery storage, and EV chargers under one financed project, paid back by energy savings and operational cost savings from EVs. The California Infrastructure Bank (IBank) offers programs like the CLEEN program which provides low-interest loans to public agencies for clean energy and efficiency projects and explicitly includes zero emission vehicles and charging infrastructure as eligible uses. Inyo County can access financing up to $30 million with attractive terms through such public finance

mechanisms, which can be more cost-effective than commercial loans. These loans or bonds can then be paid off in part by the reduced fuel and maintenance costs of EV as well as LCFS credits.

4) PUBLIC-PRIVATE PARTNERSHIPS

- In some cases, Inyo County might partner with private companies to share costs. For example, Inyo County could provide land at a facility for a third-party to build a high-capacity charging hub that serves Inyo County's fleet and other fleets, with the third-party investing capital and recovering it via service fees. It could be considered if Inyo County prefers not to own/maintain charging infrastructure directly.

OTHER CONSIDERATIONS

- **Timing and Availability:** These private financing options are available now and evolving quickly. Inyo County can entertain proposals at any time, independently of government funding cycles. Often, a combination of public incentives and private financing yields the best results. For example, Inyo County could lease vehicles but apply HVIP vouchers to reduce their capitalized cost or use a service contract where the provider leverages tax and LCFS credits behind the scenes to lower the price to Inyo County.
- **Limitations:** With private financing, it's important to perform due diligence. Long-term contracts can carry obligations and interest costs. Inyo County should compare the lifecycle cost of leasing versus buying with available grants. Also, market offerings should mature over the next few years. What's not financially attractive today might become more competitive as more players and capital enter the space. Inyo County's strong credit as a public agency could allow it to secure low-cost financing on its own, which might beat some private finance rates. Thus, private options should be weighed against public financing costs.

CONCLUSION

By leveraging a mix of the above funding sources, Inyo County could significantly reduce the cost of electrifying its vehicle fleet and deploying charging infrastructure for the public. However, funding programs are dynamic and funding streams are limited so consistent monitoring and proactive application to these opportunities will be key. Inyo County is well positioned for many of these funding streams, especially those aimed at improving air quality and demonstrating public-sector leadership in clean transportation. By leveraging grants, incentives, and innovative financing, Inyo County could reduce its costs to transition its fleet to zero emission vehicles and deploy public chargers.