PROJECT PROPOSAL PITCH DECK

SAN BERNARDINO COUNTY

Project and Facilities Management Department:
210 N. Lena Road San Bernardino, CA 92415

San Bernardino County: Fleet EV and Solar Charging Infrastructure Project

INVEST Clean Grant: Heavy Duty Charging Infrastructure Program Measure 1 (PA#2026-03) Overview

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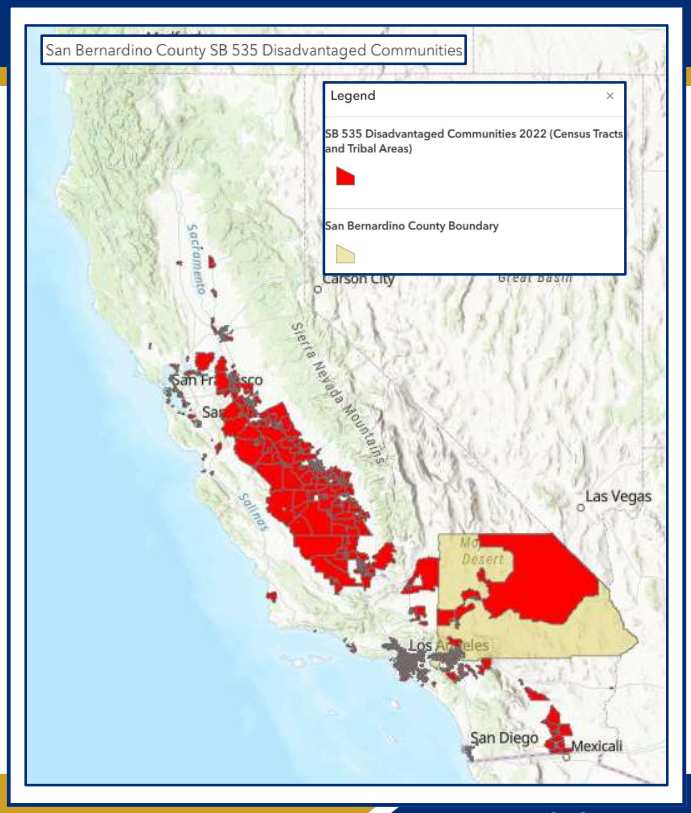
San Bernardino County Background

- San Bernardino County is 20,105 sq mi (the largest county in the contiguous United States) and serves a population of approx. 2,181,433

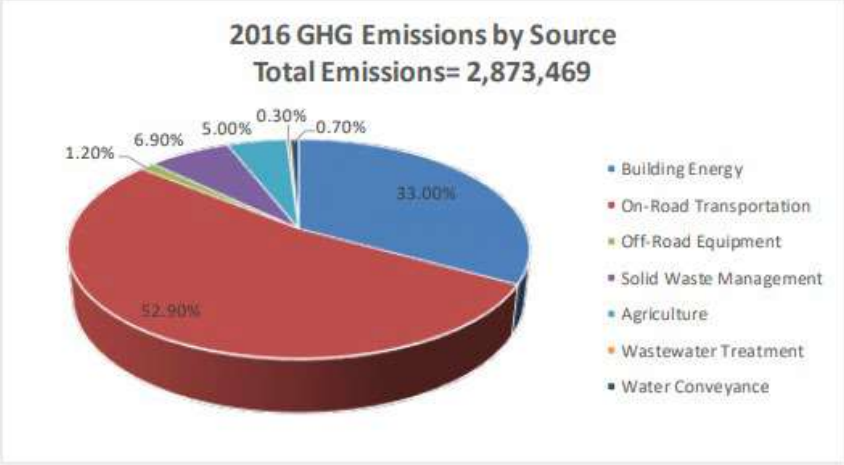
- The County Fleet provides goods movement services by transporting materials that are critical to serving the public, including:
  - medical and emergency supplies
  - fuel and maintenance materials
  - construction and infrastructure materials
  - parks and facilities equipment
  - public safety and law enforcement gear
  - administrative and program related cargo

- The County also serves a large portion of CA's SB 535 Disadvantaged Communities, which experience some of the highest levels of pollution and climate change vulnerability in the State



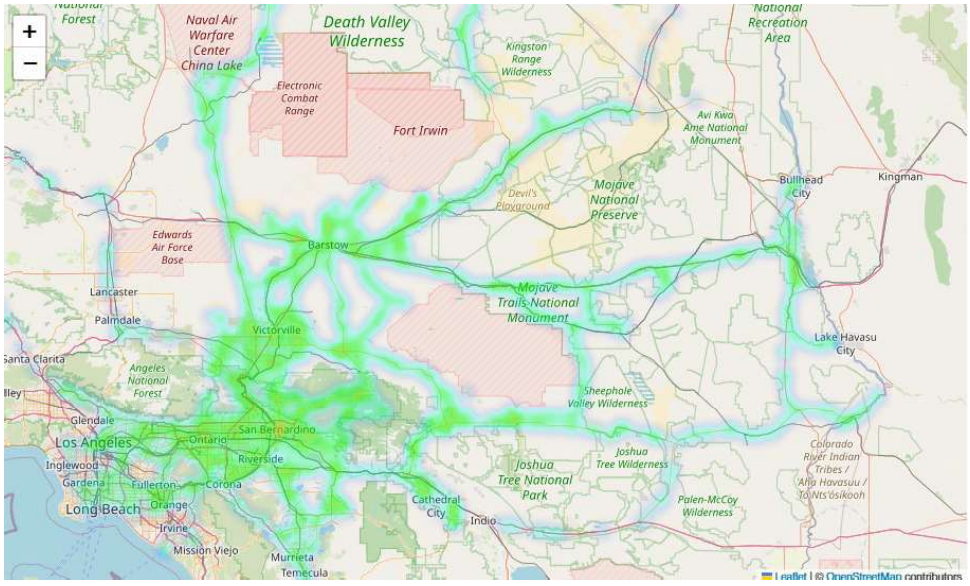
Commitment to Sustainability

- In 2021, the County adopted an updated Emissions Reduction Plan, which set a target to reduce GHG emissions to 40% below 2020 levels by 2030. The plan identified on-road transportation as the County's largest source of GHG emissions.
- Despite the recent relaxing of California Air Resources Board's Advanced Clean Fleet (ACF) regulation, the County has committed to adhering to their original compliance deadlines to meet its own reduction targets.
- The County has further committed to advancing sustainable transportation and clean energy initiatives that reduce emissions as part of its long-term strategy to meet future energy and environmental demands.
- This includes evaluating opportunities to pair EV charging with solar and battery energy storage systems at key Fleet Management locations.



Project Description - Vehicle Utilization

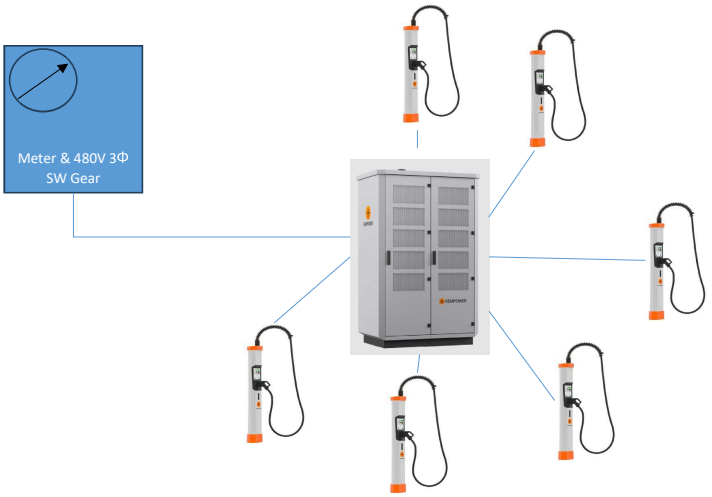
- Out of the over 400 Class 4-8 vehicles in SB County, the majority drive through the City of San Bernardino where the SB County Fleet Management Department is located
- These vehicles have high mileage and an important duty to deliver goods across the County
- SB County thus proposes that its Fleet Management Department parking lot be an EV charging hub for its Class 4-8 vehicles



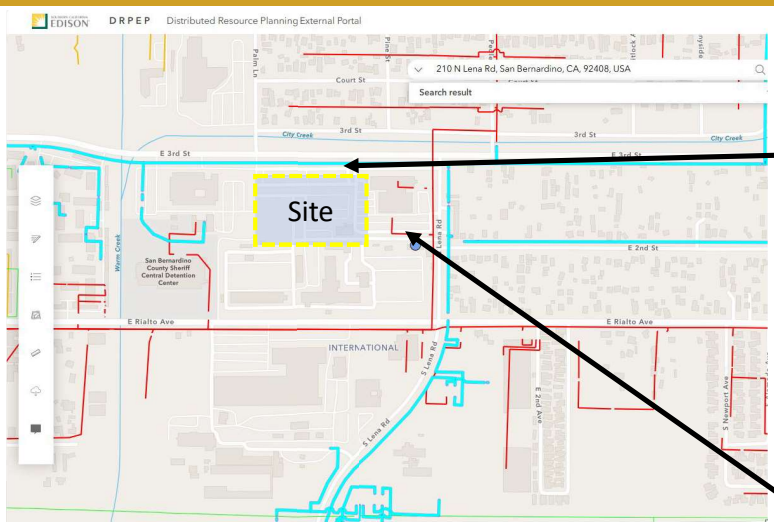
Vehicle Usage Patterns (Heat Map) – Generated by Encode

Project Description - EV Charging Redesigned

- EV chargers are distributed, dynamic charging systems where one 400kW dual power cabinet is connected to 6 dispensers
- Dispensers provide up to 400 kW to a vehicle
- Solution provides fleet vehicles with both opportunity fast charging (to charge in the middle of a shift) and overnight charging, maximizing utilization
- Dynamic power sharing ensures connected vehicles charge as fast as possible, while minimizing vehicle switching



Project Description - Site Power



Site is between two SCE circuits and will leverage >3.5MW of available circuit capacity on the “Warm Creek” circuit. Circuit “Zapata” will continue to serve the main facility and any EV charging behind that meter (capacity already reserved).

Circuit Name	Warm Creek
Circuit Voltage (KV)	12
System Name	San Bernardino 220/66
Substation Name	Cardiff 66/12 kV
Date of Last Update	10/22/2025
Plan Year	2025
Known Thermal Constraint:	No

Available Load Capacity - Circuit (MW)

	2025	2026	2027	2028	2029
Initial Estimated Circuit Available Load Capacity	4.2277	4.1393	3.6393	3.6393	3.6393
New Load Capacity Requests	N/A	N/A	N/A	N/A	N/A
Estimated Circuit Available Load Capacity	4.2277	4.1393	3.6393	3.6393	3.6393

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Available Load Capacity - Circuit (MW)

	2025	2026	2027	2028	2029
Initial Estimated Circuit Available Load Capacity	0	0	0.5	0.5	0.5
New Load Capacity Requests	N/A	N/A	N/A	N/A	N/A
Estimated Circuit Available Load Capacity	0	0	0.5	0.5	0.5

Project Description - Proposed EV Charging Infrastructure Layout

Key:
- Standard EV Charging
- Van Accessible EV Charging
- Ambulatory EV Charging
- Standard Accessible EV Charging
- Pull-through EV Charging
- EV Charging Power Cabinet
- SCE Transformer

Project would provide 30 EV charging ports which are capable of 400kW

Future phases of this project will explore pairing solar and battery storage to reduce charging costs and increase resiliency

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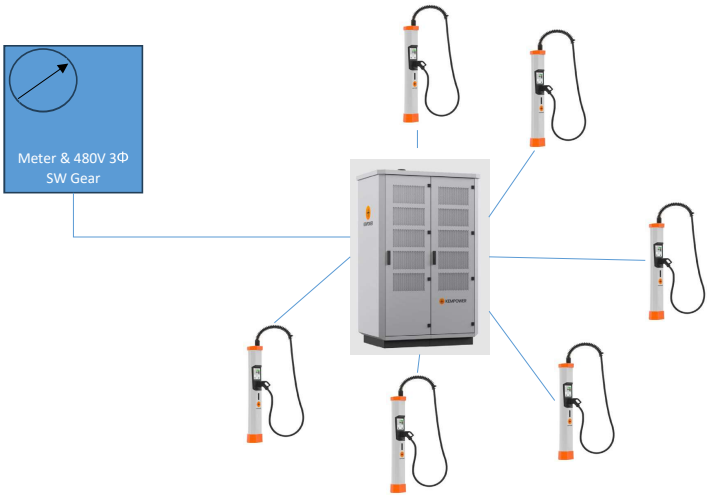

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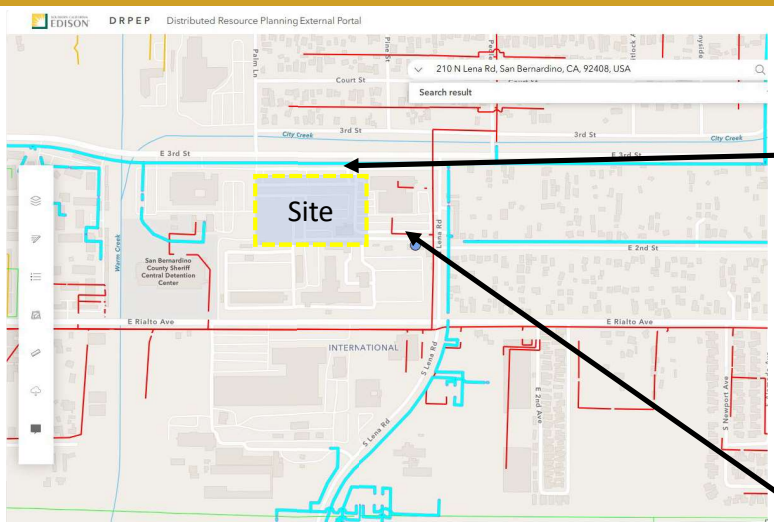

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EV Charging Cost Estimation

EV Charging Cost Estimation	
Total Project Cost Estimate	$2,400,581
Total Estimated Rebate	$1,400,000
Estimated Net Cost to SB County	**$1,000,581**

Project cost estimates were developed using a cost estimation tool based on real costs for 1000's of EV charging installations in Southern California. Cost estimates are built up from line item civil, electrical and design costs.

Description of Work	Type	How to Use	Unit	Qty.	Avg	Civil	Elec	Design
Compliance with General Conditions	Includes, but not limited to items of work such as construction waste	Keep a Qty. of 1	Per Site	1	$11,909	$5,954	$5,954	
Plan Check Corrections & Final 'As Built' Documentation	Contract to make and submit legible redline corrections	Keep a Qty. of 1	Per Site	1	$2,623			$2,623
Design & permit		Keep a Qty. of 1 if project will require an A/E firm to design the project, produce plans, and submit for plan check	Per Site	1	$32,000			$32,000
Charger installation scope	Cost per charger to install and	1 per EVSE to install and commission	EA	6	$800	$2,400	$2,400	
Potholing for existing utilities	Potholing for horizontal and vertical utility location. Removal and	Most projects will require 2-3 potholes to locate (hand dig) underground utilities	EA	2	$1,383	$2,766		
Below Grade Handholes, traffic rated - Provide complete structure and installation	Below grade, 10"x17", 3' deep	Requried for long conduit runs >250' or if there are more than 360 degrees of bends in conduit run.	EA		$854	$0		
	Below grade, 17"x30", 3' deep		EA		$1,291	$0		
	Below grade, 24"x36", 3' deep		EA	2	$2,442	$4,883		
Above Grade Junction Boxes, Nema 3R - Provide complete structure and installation	Above grade, 8"x8" NEMA 3R	Outdoor-rated boxes for conduit runs with >360 degrees of bends	EA		$303		$0	
	Above grade, 12"x12" NEMA 3R		EA		$414		$0	
	Above grade, 18"x18" NEMA 3R		EA		$572		$0	
	Above grade, 24"x24" NEMA 3R		EA		$954		$0	
Install concrete foundation/pad for charger Pedestal	Field Poured 3'x3'x6" Fleet Concrete Pad	1 per EVSE unless they are wall-mounted, then 0	EA	6	$1,600	$9,598		
Barrier Post - Provide all material and installation	For EVSEs: 4" diam x 4' tall bolt down	For use in parking garages, when necessary	EA		$713	$0		
	For EVSEs: 4" diam x 4' tall with 2' below grade, encased in 1' diameter concrete	For use to protect outdoor electrical equipment, primarily switchgear but sometimes chargers too	EA	20	$795	$15,905		
Above grade: Provide and install rigid conduit (including conduit bodies up to 3 in) and all conduit-related materials, including fastening and installation	3/4 in. to 1-1/2 in.	1.5" conduit is generally sufficient for single or dual-port L2 chargers.	LF		$34		$0	
	2 in to 4 in.	Feeder conduits for transformers and subpanels, DCFC conduits, and utiltiy conduits	LF		$86		$0	
	4-1/2 to 6 in		LF		$145		$0	
Trenching for below grade utility installation, including excavation and backfill to 95%	Up to 24" wide x 4' below improvements	Total trench length when in planters, parking lots, sidewalks, etc.	LF		$59	$0		
	Up to 36" wide up to 4' below	Use only for large ductbanks, >30 ports	LF		$67	$0		
Trenching for below grade utility installation, including excavation and slurry backfill.	Up to 24" wide x 4' below improvements	Total trench length in high traffic areas such as roadways, bus yards, receiving docks, etc	LF	235	$120	$28,087		
	Up to 36" wide up to 4' below	Use only for large ductbanks, >30 ports	LF		$141	$0		
Directional drilling for below grade utility installation.	Including excavation and backfill of drilling and receiving pits, sleeve as		LF		$166	$0		
Below grade: Provide and install PVC conduit with all conduit-related materials,	3/4 in. to 1-1/2 in.	Total conduit length, including horizontal and vertical lengths when coming out of ground into charger and panelboard, add ~6' to your horiontal distance for vertical sweep. (1) 1.5" conduit can feed a dual port charger	LF		$11		$0	

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Project Benefits

- ✓Closes the gap in goods movement charging infrastructure for SB County
- ✓Roughly 3,749 Metric Tons CO_2e reductions per year along with reductions in criteria air pollutant emissions, vastly improving overall air quality and climate resiliency for an area prioritized by the State for climate funding and programs
- ✓Helps the County meets decarbonization goals that are in line with State targets
- ✓Allows SB County to meet the ACF medium- and heavy- duty requirements much sooner than required, and ultimately mitigates more extreme climate impacts
- ✓Provides vital funds for infrastructure upgrades that will enable progressive build out of a robust EV charging network to support electrification across the entire County

PROJECT DESCRIPTION

SAN BERNARDINO COUNTY FLEET MANAGEMENT:
INVEST CLEAN GRANT PROJECT DESCRIPTION

The County of San Bernardino's Department of Fleet Management is requesting funds from INVEST Clean's Heavy Duty Charging Infrastructure Program Measure 1 (PA#2026-03) at 210 N. Lena Road. This site is located in an SB535 Designated Disadvantaged Community (or DAC) census tract, making it a priority area for greenhouse gas and air pollution reduction efforts for the state. The project is envisioned in two parts comprising the overall EV charging project for goods movement. "Part A" leverages the existing infrastructure on site to cost effectively install DC Fast Charging using spare site capacity, whereas "Part B" installs a dedicated new SCE meter to provide the additional DC Fast Charging capacity needed for the County's Class 4-8 fleet. Part A would consist of six DC Fast Charging single "plugs" or dispensers, and Part B would consist of 24 DC Fast Charging single dispensers. To provide further decarbonization benefits to this project, as well as bill savings, the County has planned to install solar PV and Battery Energy Storage (BESS) in addition to the DC Fast Charging at their Lena Road Complex.

This site functions as part of San Bernardino County's government facilities complex and supports the Fleet Management Department, Fire Department Garage, and Public Works as an existing fleet depot, with a majority of their 2470 vehicles passing through or parking overnight at this depot. The County Fleet includes 438 class 4-8 vehicles that support goods movement in and around the 20,105 square mile county, the largest county in the contiguous United States. Goods movement for County purposes includes the transport of medical and emergency supplies, fuel and maintenance materials, construction and infrastructure materials, parks and facilities equipment, public safety and law enforcement gear, and administrative and program related cargo which are critical to the County's ability to provide services to the public. If electrified, it is estimated that the County's Class 4-8 vehicles would consume 5.2 GWh of electricity, reducing fuel-related emissions by almost 3,800 metric tons of CO2e on an annual basis.

Despite the recent relaxing of California Air Resources Board's Advanced Clean Fleet (ACF) regulation, the County has demonstrated an unwavering commitment towards decarbonization and fleet electrification by adhering to their original compliance plan deadlines. However, there exists a significant funding gap for installing the EV charging infrastructure necessary to support an electrified goods movement fleet.

INVEST CLEAN funding for this charging infrastructure project is crucial to the decarbonization of the County's goods movement fleet and will allow for a more aggressive zero emission fleet transition plan.

Proposed project "Part A – Behind the Existing Meter" includes the installation of one Kempower 400kW distributed charging station system with one power cabinet and six single port dispensers at 210 N. Lena Road. Each dispenser has a maximum charging power of up to 400 kW. This project would be installed behind the existing San Bernardino County Fleet Management electrical meter leveraging spare site capacity and thus would not require a site power upgrade. These initial 6 DCFC ports are the most cost-effective solution for goods movement fleet charging for San Bernardino County. This project also envisions solar PV and BESS to offset both EV charging cand facility costs while generating carbon free electricity and controlling grid facing demand. This solution provides for a 400kW fast opportunity charging for vehicles passing through the Lena Rd. depot which need to return to service quickly and, using the same infrastructure, is also able to leverage dynamic power management to charge multiple connected vehicles at 25-400kW according to the requests of the individual vehicles and other factors, such as power availability and cost.

Proposed project "Part B – New Meter" includes the installation of four Kempower 400kW distributed charging station systems with a total of four power cabinets and 24 single port charging dispensers at 210 N. Lena Road drawing a maximum of 1600kW in total. Each dispenser has a maximum charging power of up to 400 kW. This project would be installed behind a new Southern California Edison Meter which provides the additional charging capacity needed to facilitate the remainder of the County's class 4-8 vehicles This project also envisions solar PV and BESS to offset both EV charging cand facility costs while generating carbon free electricity and controlling grid facing demand. This solution provides for 400kW fast opportunity charging for vehicles passing through the Lena Rd. depot which need to return to service quickly and, using the same infrastructure, is also able to leverage dynamic power management to charge multiple connected vehicles at 25-400kW according to the requests of the individual vehicles and other factors such as power availability and cost.

PROJECT TIMELINE

PROJECT IMPLEMENTATION SCHEDULE

Project Tasks	Proposed Dates (Part A)	Proposed Dates (Part B)
Site Power Upgrade (If Needed)	N/A	February 2026 – August 2027
Engineering Design (If Required)	March 2026 – August 2026	March 2027 – August 2027
Place Order for Project Equipment	September 2026	September 2027
Delivery of Charging Equipment	February 2027	February 2028
Construction & installation of the charging station (specify the timeline if chargers are installed in phases)	January 2027 – June 2027	January 2028 – June 2028
Commissioning of the charging station and local government final approval (City permit signed off with construction, electrical, fire safety done by municipality)	July – September 2027	July 2028 – September 2028

INFRASTRUCTURE PROJECT INFORMATION

Infrastructure Project Information

Station Type	New	Powered by Renewable Sources	Solar
Publicly Accessible	No		