

# The Electric Future

Best Practices and Lessons Learned from Pioneering Cities

# Charge Ready

Presented by Omar Faris, Clean Energy Advisor, SCE



Energy for What's Ahead®

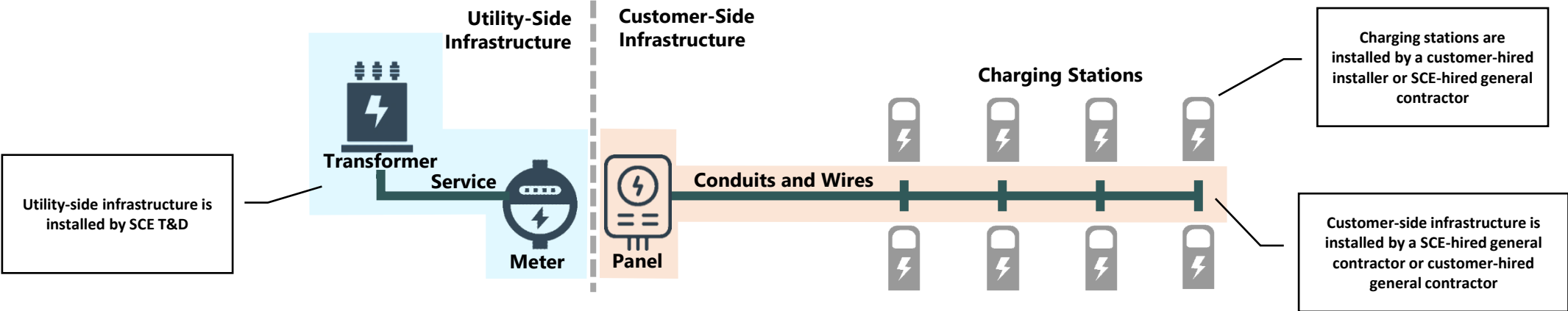


# Charge Ready Program Offerings

	1 CHARGING INFRASTRUCTURE AND REBATE	2 Small Site Rebate
Objective	Provide <b>make-ready infrastructure</b> for EV charging to non-residential and multifamily sites	Provide a <b>1-time rebate of \$10,000 per port to install up to 4 L2 ports</b>
Target Customers	Existing <b>non-residential and multifamily</b> properties	Existing <b>non-residential and multifamily</b> properties
Offering	Covers <b>make-ready infrastructure</b> up to EVSE stub-out	Can be used toward all aspects of <b>design, purchase, construction, and installation</b> of L2 charging stations.

<sup>1</sup> DCFC program option launching early Q2 2024

# Charge Ready Program Options



OPTIONS			AVAILABLE TO	UTILITY-SIDE INFRASTRUCTURE	CUSTOMER-SIDE INFRASTRUCTURE	EVSE REBATE	INFRASTRUCTURE REBATE
CHARGING INFRA-STRUCTURE & REBATE	1	SCE-Built Infrastructure	Non-residential and multi-family	SCE-installed	SCE-installed	NA	NA
	2	Customer-Built Infrastructure	Non-residential and multi-family choosing to own infrastructure	SCE-installed	Customer-installed	NA	Lesser of 80% of SCE's cost or 80% of the customer's actual cost.
	3	Small Site Rebate	Non-residential and multi-family	SCE-installed (outside of program)	Customer-installed	Single rebate covering EVSE and infrastructure	
NEW CONSTRUCTI ON REBATE	4	New Construction Rebate	New multi-family construction	SCE-installed (outside of program)	Customer-installed	Single rebate covering EVSE and infrastructure	



# Charge Ready Key Program Requirements

APPLICANT ROLE

- **Non-residential** SCE customer
- **Own, lease, manage**, or be the customer of record of charging site
- Obtain **consent from property owner** (if applicable)
- Grant **easement rights** to SCE

DEPLOYMENT

- **Minimum of four** Level 1 or Level 2 charging ports except New Construction Rebate
- All charging equipment must be **separately metered**
- Enroll in a **demand response program**

EQUIPMENT

- Select from **SCE’s Approved Product List (APL)** to qualify for the rebate
- Keep equipment **operational for 10 years**
- Provide **monthly charging data**
- Report **prices charged** to EV drivers

EXTERNAL

# Notable Challenges and Successes

## SCE Challenges

- Materials constraints
- Permitting challenges

## Customer Challenges

- Delays in construction
- The relative unknown as it relates to long term ownership and maintenance
- Limited cases of vandalism



## Mitigations

- Additional suppliers being added
- Proactive outreach to stakeholders

## Successes!

- High levels of program participation across all sectors.
- Great participation in the community college segment.

EXTERNAL

# SCE's Charge Ready Transport Program

Charge Ready Transport, **7-year program, launched in 2019**, has a **\$342M budget**, and is striving to provide support the electrification of **500 Sites / 8,490 MDHD vehicles**

Program will **design and build make-ready electrical infrastructure** on both the utility-side and customer-side of the meter for qualifying SCE customers procuring or converting at least 2 MDHD EVs

**Charging Equipment Rebates Available** for eligible Participants installing charging equipment such as Transit Agencies, School Districts, or at sites located in disadvantaged communities where the Participant is not a Fortune 1000 company

Program Participants are enrolled into **Commercial Time-of-Use (TOU) Rates 7, 8, and 9. No Demand Charges from 2019-2023**. Demand phases in from 2024-2029



CITY OF SOUTH PASADENA

# POLICE EV FLEET & CITY HALL ELECTRIFICATION PROJECT



# BACKGROUND

## SOUTH PASADENA ELECTRIFICATION PROJECT

- **Need for vehicles & opportunity to switch a full fleet of vehicles**
- **Support of leadership in organization & City Council**
- **Aligns with City's leadership in Environmental Stewardship**
  - **Climate Action Plan**
  - **Gas Powered Leaf Blower Ban**
  - **Eco-friendly requirements for other contracts:**
    - **City Manager's contract: personal vehicle**
    - **Landcare & tree maintenance vendor**
    - **Clean-idling heavy-duty vehicles (Public Works & Fire)**





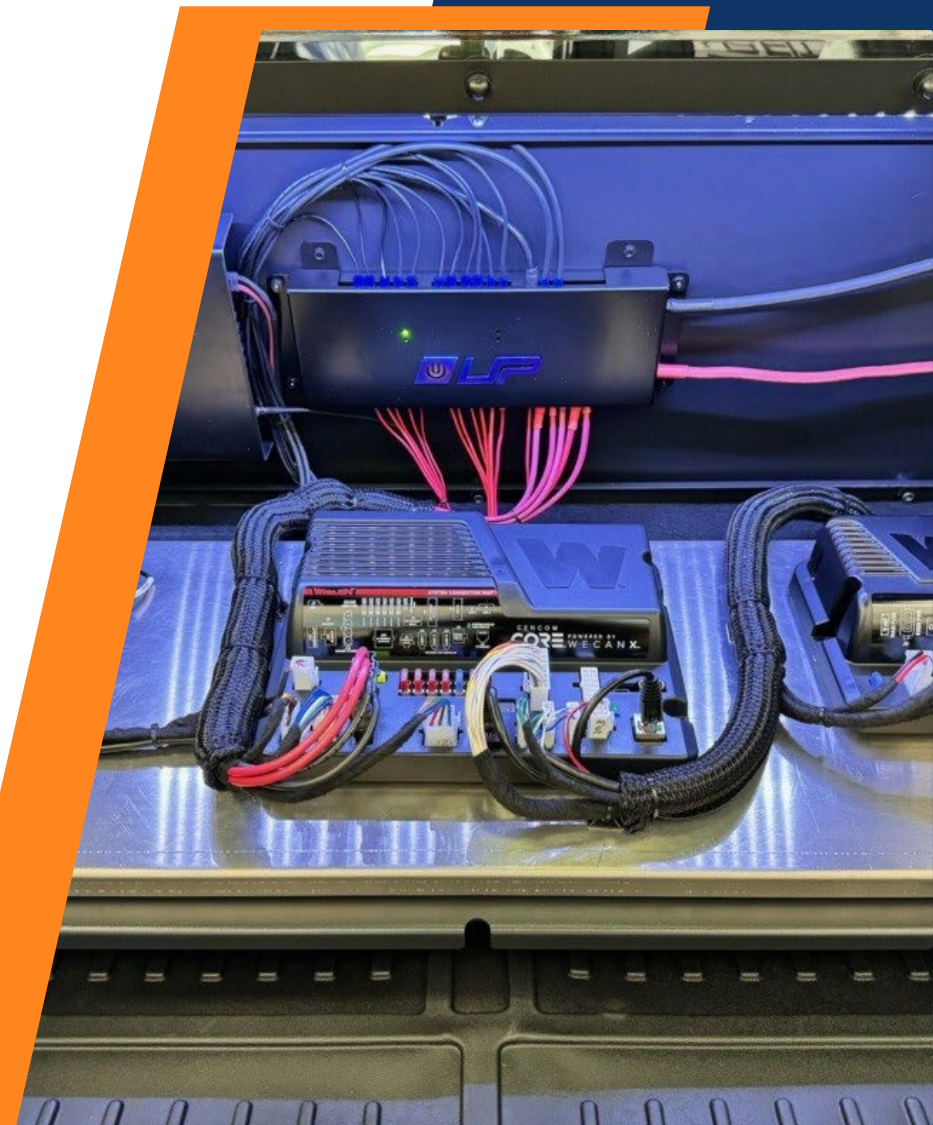
# PROJECT SCOPE

## CITY HALL ELECTRIFICATION

- Installation of charging infrastructure at City Hall
  - 17 Level 2 chargers at City Hall
  - 9 chargers with 16 ports in internal lot to facilitate Police fleet needs
  - 1 Level 3 charger dedicated to emergency response
  - Chargers in external lot for staff/public use
- Installation of solar array and battery back-up at adjacent City-owned parking lot

## POLICE DEPARTMENT EV VEHICLES

- Lease and total replacement of Department fleet
  - 10 Model 3 administrative/ detective vehicles
  - 10 Model Y patrol vehicles (including 2 K9)



## Our Core Values

**Honesty and Integrity | Teamwork | Outstanding customer-friendly service | Responsiveness | Open and accessible government | Community participation | Fiscal responsibility**



## Our Mission



**The City of South Pasadena is committed to providing effective and efficient municipal services for the community while preserving our quality of life and small-town character in a 21st Century environment.**

# PROJECT SNAPSHOT



WHO

**CITY OF SOUTH PASADENA**

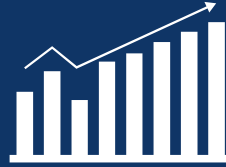
**SOCAL EDISON**

**CLEAN POWER ALLIANCE**

**SOCAL AQMD/ MSRC**

**UNPLUGGED PERFORMANCE**

**ENTERPRISE FLEET MGMT**



WHAT

**EV FLEET LEASE (60 MO.)  
\$1.8M**

**ANNUAL COST SAVINGS  
\$65k**

**INFRASTRUCTURE  
COST & MATCH:  
\$475k/ \$499K**

**GRANT: \$500k**



WHEN

**CITY COUNCIL APPROVAL  
SEPT 2022**

**VEHICLES RECEIVED  
JANUARY 2023**

**VEHICLE UPFITTING  
MARCH 2024**

**INFRASTRUCTURE  
MAY 2024**



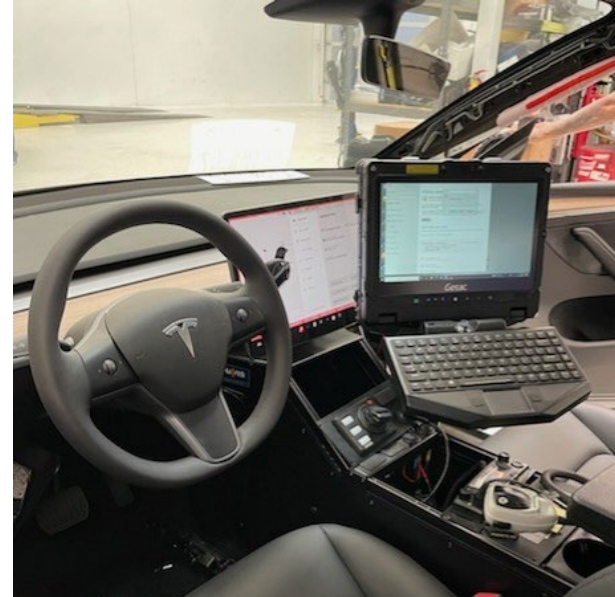
# Challenges

- **Dynamic project with moving timelines**
- **Vehicles ahead of infrastructure**
- **Pilot program comes with trial & error**
- **City Council, staff & community hesitation: technology & range anxiety**
- **Legal nuances**
- **Timelines affected by supply-chain disruptions**
- **Fiscally conservative community perception**
- **Transparency on a dynamic project**
- **Custom-made vehicles need finessing**



[illegible]

- **Progressive & hands-on interdepartmental project**
- **Key project partners making investment & infrastructure feasible**
- **PD Sergeant & Public Works Director are now in-house subject matter experts**
- **Management & Elected support for shift & investment**
- **Conscious decision that ties into other sustainability goals and initiatives**





# Lessons Learned

- **Information sharing & transparency is key**
  - **Storytelling & tracking progress**
- **Regular updates & financials to Council**
  - **Ease dynamic process & timelines**
- **News awareness**
  - **Tesla, EV, State mandates**
- **Must be flexible in working on a pilot project**
- **Interdepartmental teams can thrive**
- **Progressive projects with partners can work**



mo

December 6, 2023

The Honorable City Council

Arminé Chaparyan, City Mana

**m:** Ted Gerber, Public Works Director

Brian Solinsky, Chief of Poli

**Subject: Status Update and Finan**

On September 21, 2022, the City of City Hall and the transition of approved transition included proc operations and 10 Model 3 vehic year leasing program with Ente infrastructure to support an installing, and maintaining 3

	VEHICLE PURCHASE PRICE
	\$56,696
	\$56,696
50	\$49,940
60	\$49,940

tion of old vehicles, depend

YEAR 1 COST	\$691,601
YEAR 2 COST	\$298,477
YEAR 3 COST	\$298,477
YEAR 4 COST	\$298,477
YEAR 5 COST	\$298,477
	<b>\$1,885,509</b>

# THANK YOU PROJECT PARTNERS



SOUTHERN CALIFORNIA  
**EDISON®**

Energy for What's Ahead™



South Coast  
**AQMD**



UNPLUGGED  
PERFORMANCE



**FLEET MANAGEMENT**



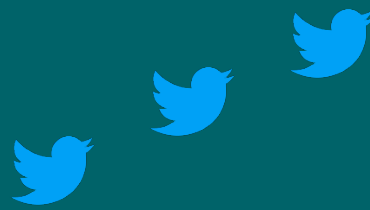
# The Electric Future

## Best Practices and Lessons Learned from Pioneering Cities



### EV Chargers Project – Downtown Visalia, CA

Derek Winning, Principal Planner,  
Tulare County Association of Governments



Go Electric He Said

Zero Emissions????



## Project Goals

- Enhance the number of EV Chargers in Downtown Visalia
- Charging for TCAG vehicles
- Benefit to TCAG Employees
- Implement Sustainable Communities Strategy (SCS) - Electrification

## SCE Charge Ready Program

- SCE – Design, Permits, Construction Management
- TCAG – EV Charger Procurement, Installation, Activation



## Obstacles

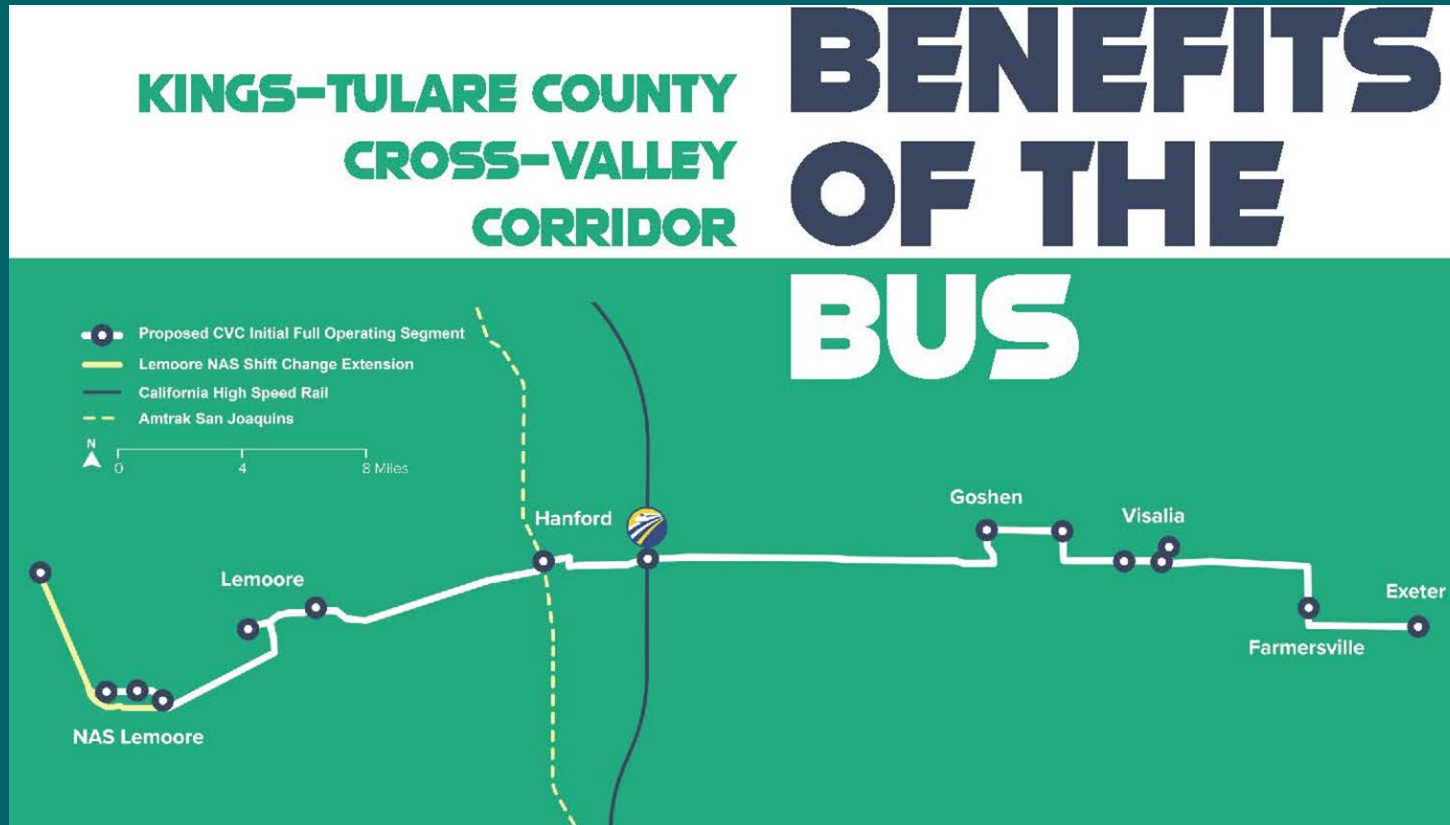
- Anti-Electrification Landlord
- FEMA EV Flood Plane Ordinance

## Lessons Learned

- Partnerships, Partnerships, Partnerships
- Get With The Program – GO ELECTRIC



## Next Project



- Southern California Edison
- Pacific Gas & Electric
- NAS Lemoore

What could go wrong???

## Special Thanks to our Partners

### SCE Team

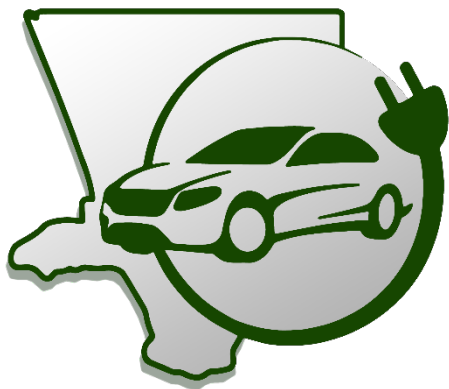
Frank Yanes Jr  
Dustin Underwood  
Omar Faris  
Richard Saylors II

### Visalia Team

Leslie Caviglia  
Nick Mascia  
Lupe Garcia



And that dragon lady



# ISD's Clean Transportation and Energy Program

January 2024

Laura Iannaccone





# OurCounty Goal 7

A fossil fuel-free LA County

## Targets

50%

Achieve a 50% reduction in total greenhouse gas emissions within the county by 2035

15,000

15,000 EV charging stations at County facilities, and 100% medium-duty vehicle and emergency light-duty vehicle purchases to be zero-emission or better by 2035

100%

100% of all vehicles in the County fleet to be zero-emission or better by 2045



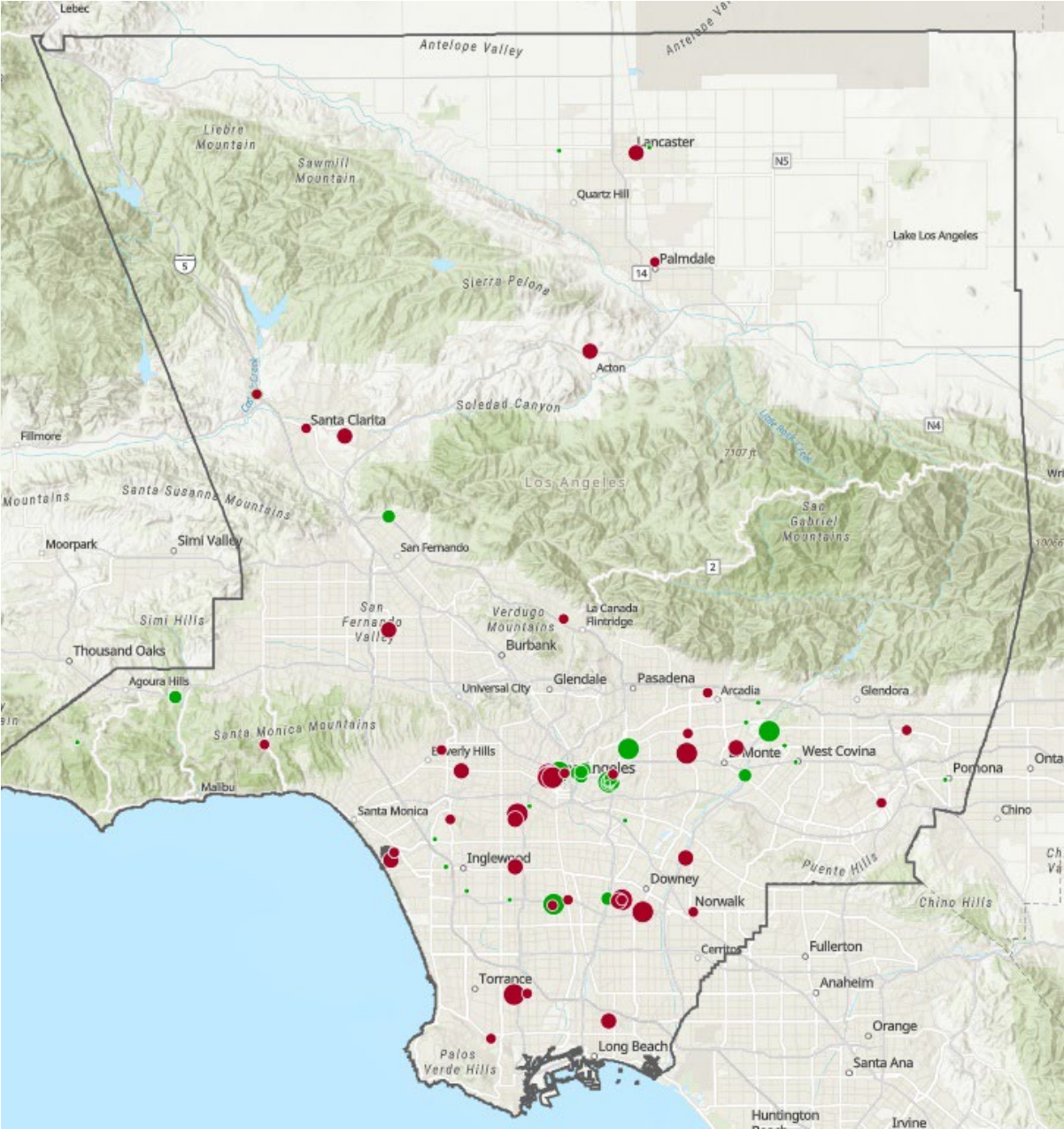
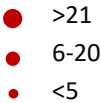
# LA County Chargers

BY THE NUMBERS

Public County  
operated chargers



County  
fleet/employee  
operated chargers



01 76 Total Sites

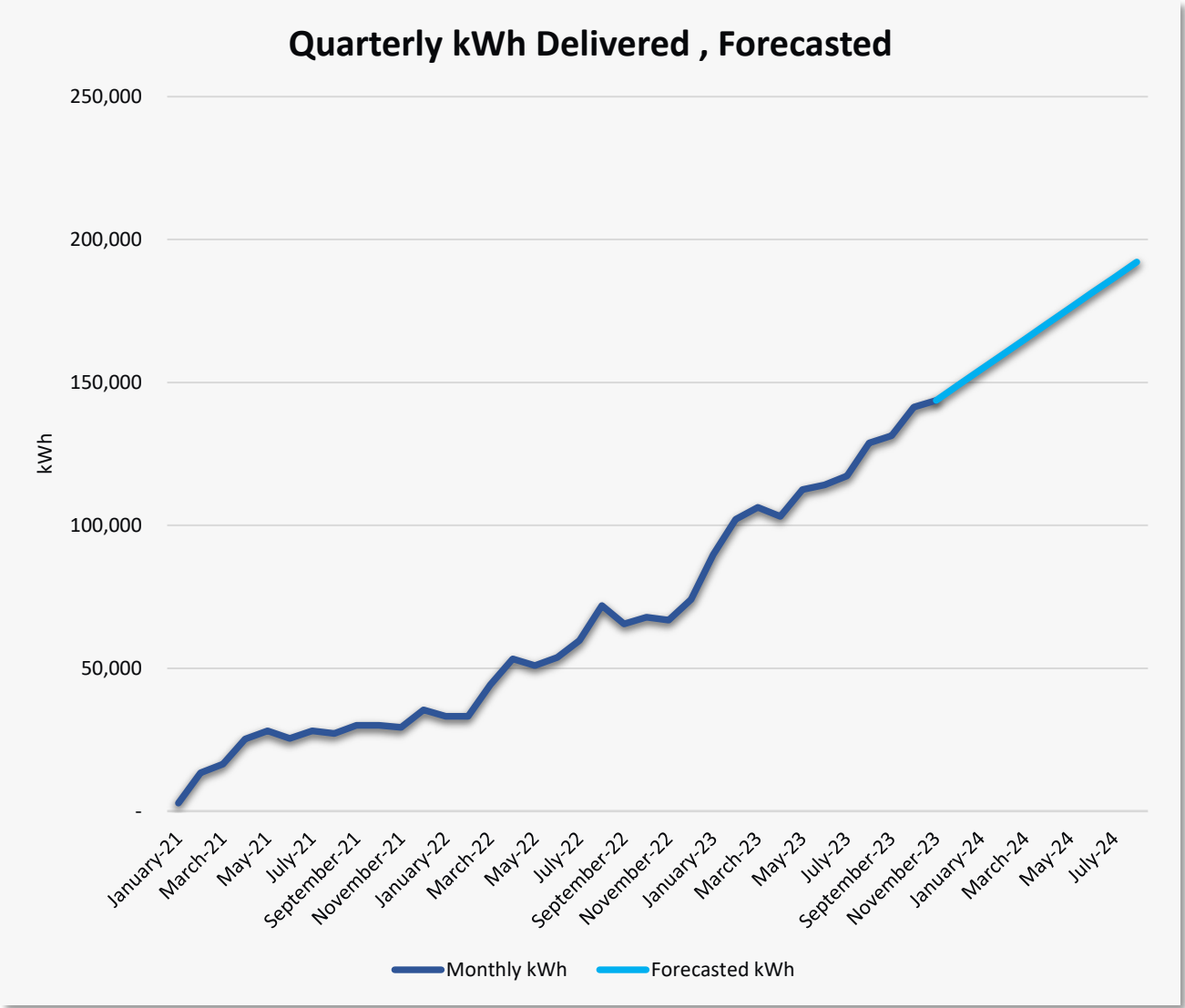
02 1,300 chargers

03 Site Selection

04 Equitable Distribution

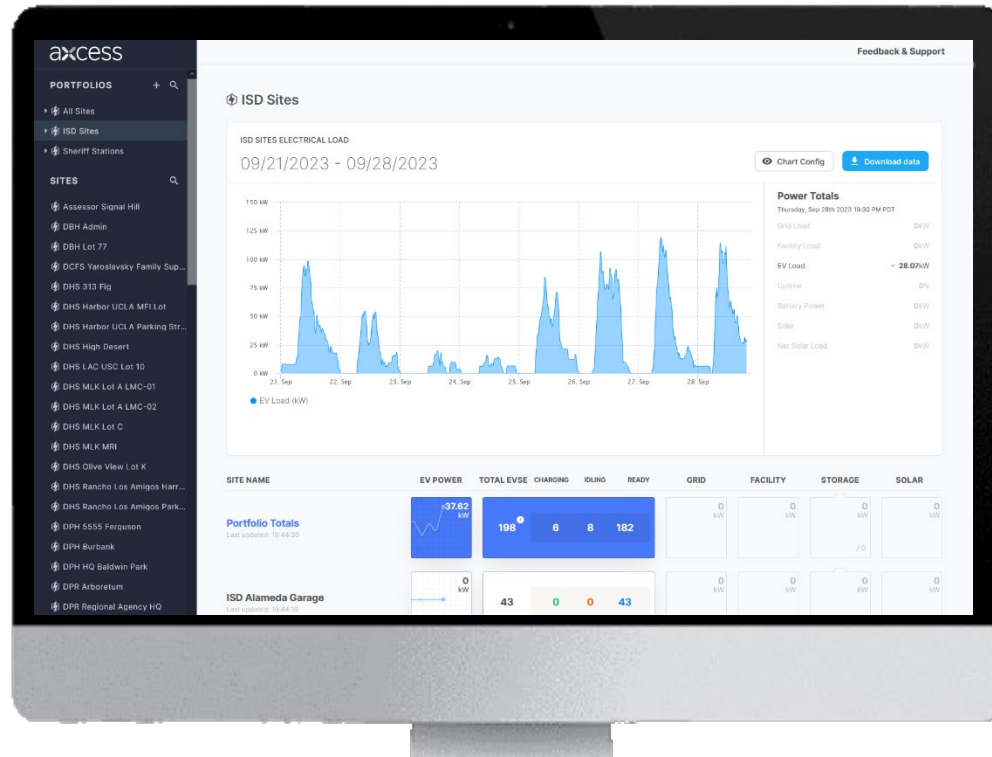
# Where We Are, Where We're Going

The County’s EV Charging network is experiencing substantial growth since the formation of the CTEP team in 2020:





# PowerFlex Axcess Network



## PowerFlex's Adaptive Load Management (ALM)

The ALM enables grid-friendly EV charging. ALM shifts electrical load from peak times, when energy costs are highest, and ensures a cost-effective balanced power draw throughout the day.

The ALM algorithms work to co-optimize EV charging, energy storage, and solar generation to reduce costs. PowerFlex's portal monitors energy asset health and performance along with operational dashboards and reports.



# User Fees



**User Fees** CTEP receives monthly user data—for both public charging and fleet charging—from Powerflex.

**Rate Structure** The Board of Supervisors approved an EV charging rate structure of:

- 30 cents per kilowatt hour before 4 p.m.
- 45 cents per kilowatt hour between 4 p.m. and 9 p.m.

# EVSE Operations & Maintenance Plan



## Operations & Maintenance

To ensure County responsiveness to offline chargers, CTEP developed an M+O Plan that provides guidance on the maintenance procedures to get the chargers back online.





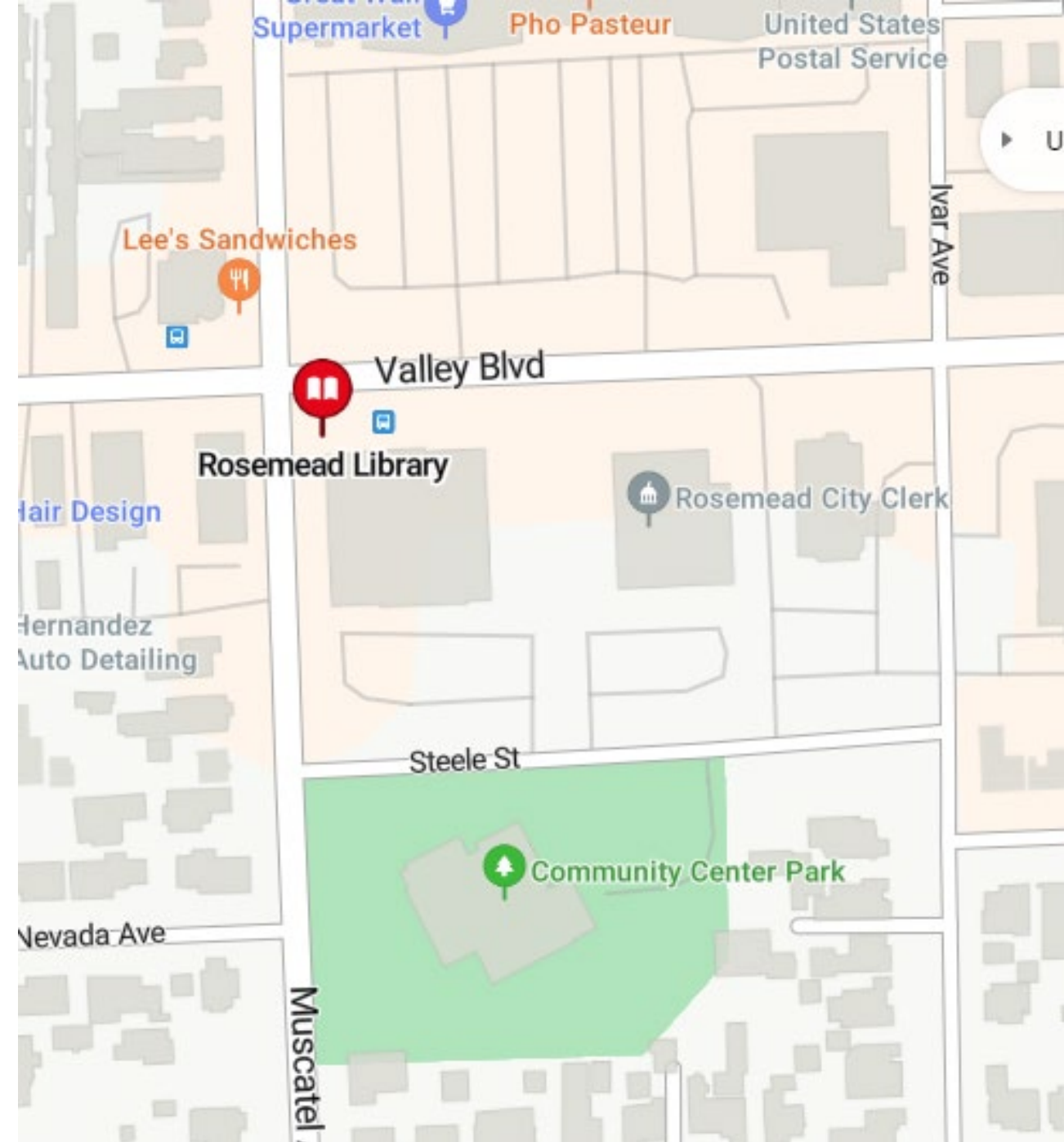
## ROSEMEAD PROJECT

- Installed 26 Level 2 Webasto charging stations
- For Library Fleet, employees and the public



## Selection Criteria

- Along a highly trafficked major corridor
- Limited public charging in the community
- Rosemead City Hall and community center share the parking lot
- 98<sup>th</sup> CalEnviroScreen



# Community Involvement

## *Electrify Rosemead*

EV Charging Station Launch  
& Community Resource Fair

**SAT. JUNE 24, 2023**  
**10 AM - 12 PM**

*Program Start: 10:30 AM*

**Bring the Whole Family!**

Electric Vehicles - Community  
Booths - Activities for Kids

**Rosemead Library Parking Lot**

8800 Valley Blvd, Rosemead, CA, 91770

Questions? Contact Us. (626) 573 -5220



Los Angeles County Supervisor

**HILDA L. SOLIS**  
First District • Chair



Training, Education, Outreach

# Electrifyze



Helping Residents Create A  
Fossil Fuel Free Los Angeles

**ELECTRIFYZE™**

About

EV101

Explore EVs

Get An EV



Filters:

PRICE

FUEL

MAKE

BODY

OTHER

✕ Clear Filters

Sort By: Price: Low to High ▾

Showing 113 cars.

SHARE

**Chevrolet**  
**Bolt EV** 1LT



**\$17,995**

MSRP after incentives

**All-Electric**

Electric Range 259 miles

[Learn More >](#)

**Chevrolet**  
**Bolt EUV** LT



**\$19,295**

MSRP after incentives

**All-Electric**

Electric Range 247 miles

[Learn More >](#)

**Tesla**  
**Model 3** RWD



**\$23,990**

MSRP after incentives

**All-Electric**

Electric Range 272 miles

[Learn More >](#)

**Nissan**  
**LEAF** S



**\$26,140**

MSRP after incentives

**All-Electric**

Electric Range 149 miles

[Learn More >](#)

**Tesla**  
**Model Y** Standard Range AWD



**\$27,140**

MSRP after incentives

**All-Electric**

Electric Range 279 miles

[Learn More >](#)

**Volkswagen**  
**ID.4** Standard



**\$29,495**

MSRP after incentives

**All-Electric**

Electric Range 209 miles

[Learn More >](#)



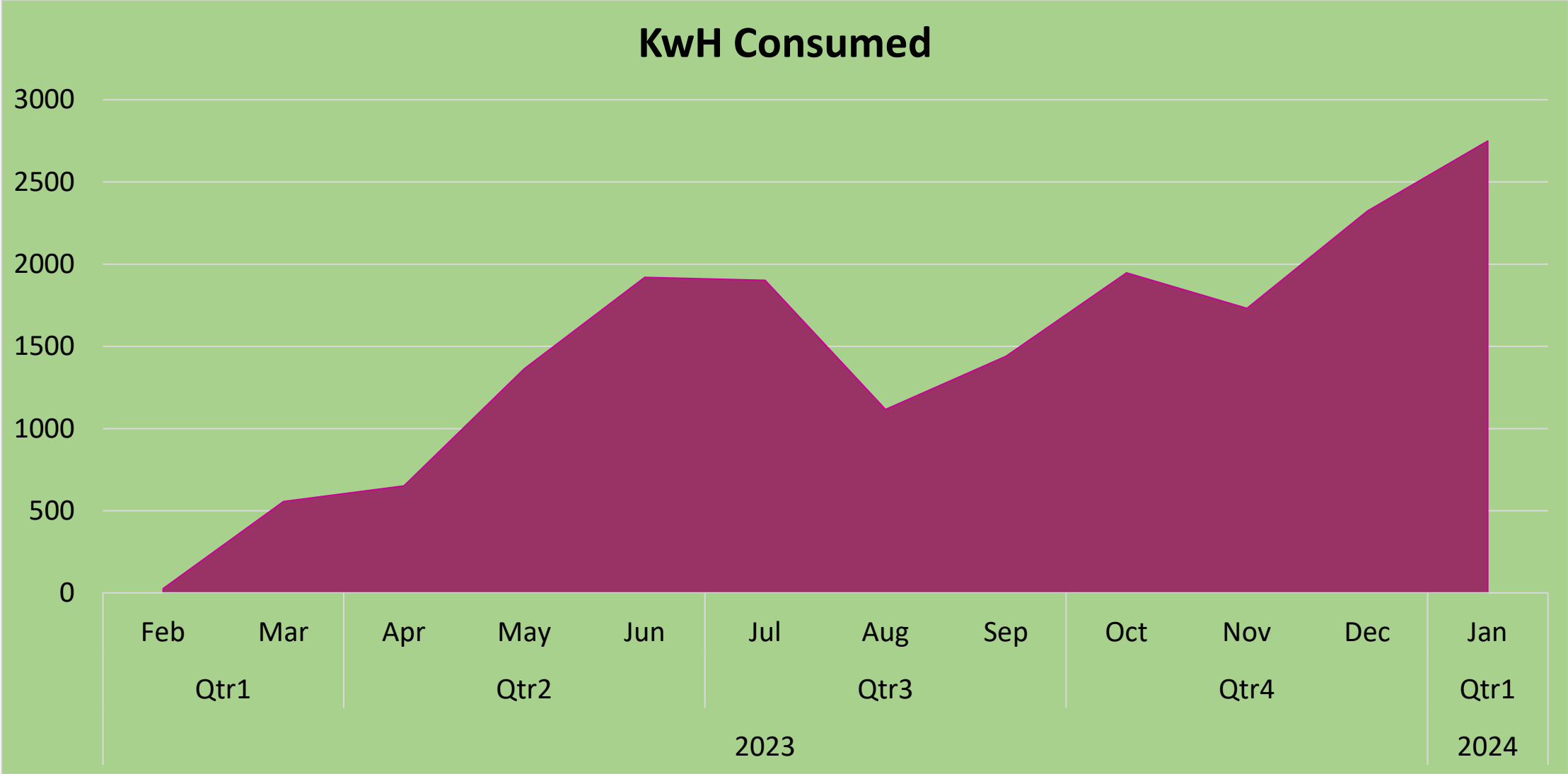
# Plug2Power



## Incentivizing Change

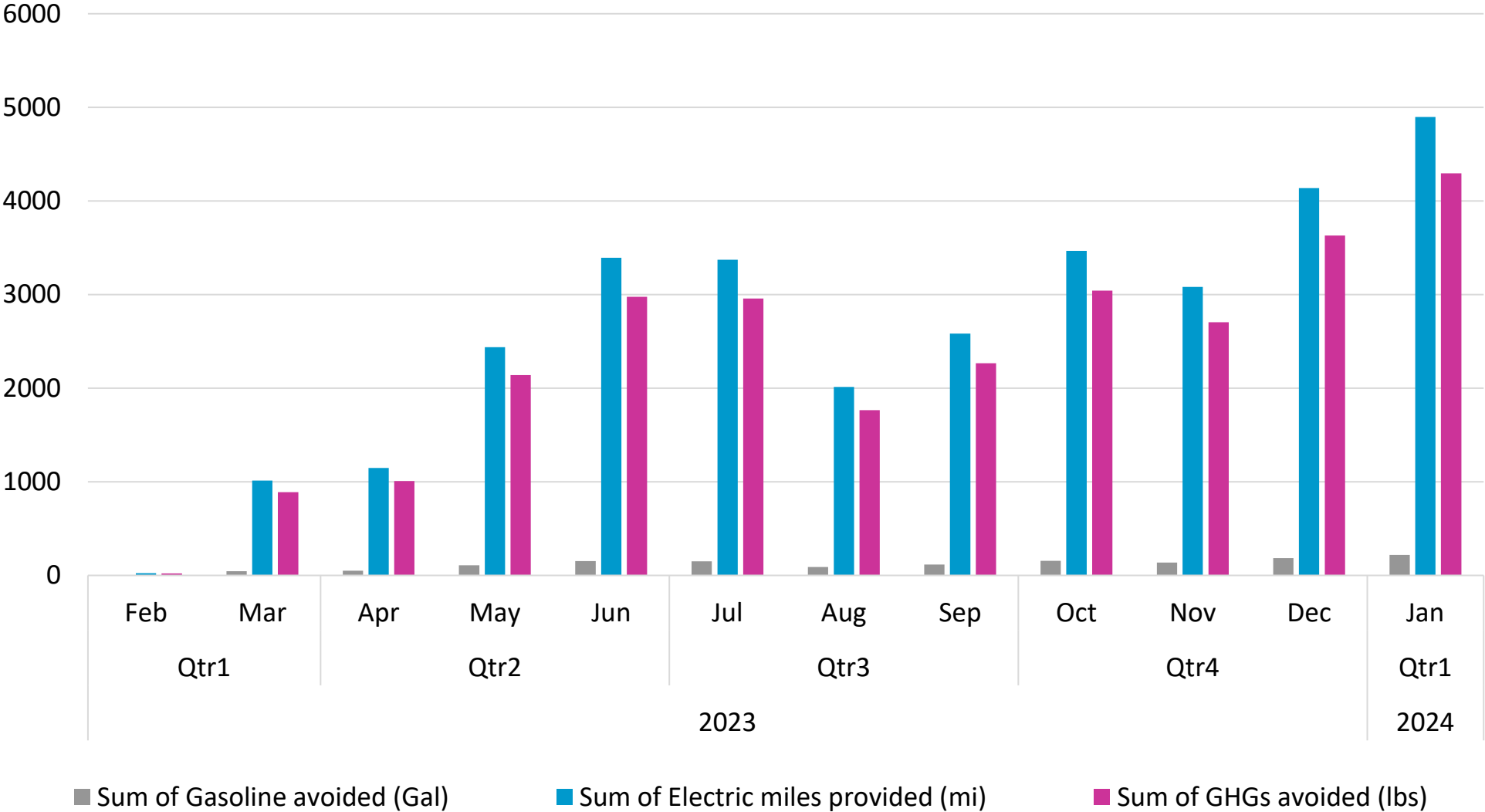
The Plug2Power program is an incentive program available to all County employees and members of the Public who have purchased or leased a plug-in vehicle retroactive to January 2020.







# Environmental Benefits





### Site Selection and Application

Select locations and submit as early as possible. Work closely with SCE



### Funding

Securing investments, cost uncertainties, charging rate structure based on balancing public and equity needs



### Procurement and processing

Have contracts in place and work closely with equipment suppliers



### M+O Needs

Vandalism, technical issues requiring extensive troubleshooting, lack of user support on connectivity issues.



### Outreach

Outreach and education is critical to the process. Work closely with local partners.

Thank You!

# Contact Us

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

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## Address

1100 n Eastern Ave  
Los Angeles, CA 90063



## Email

[EVProgram@isd.lacounty.gov](mailto:EVProgram@isd.lacounty.gov)



## Online

[isd.lacounty.gov](http://isd.lacounty.gov)



# Questions and Answers