The Electric Future
Best Practices and Lessons Learned from Pioneering Cities
Charge Ready
Presented by Omar Faris, Clean Energy Advisor, SCE
Charge Ready Program Offerings

1. CHARGING INFRASTRUCTURE AND REBATE
   - Objective: Provide make-ready infrastructure for EV charging to non-residential and multifamily sites
   - Target Customers: Existing non-residential and multifamily properties
   - Offering: Covers make-ready infrastructure up to EVSE stub-out

2. Small Site Rebate
   - Objective: Provide a 1-time rebate of $10,000 per port to install up to 4 L2 ports
   - Target Customers: Existing non-residential and multifamily properties
   - Offering: Can be used toward all aspects of design, purchase, construction, and installation of L2 charging stations.

1 DCFC program option launching early Q2 2024
Charge Ready Program Options

Utility-side infrastructure is installed by SCE T&D

Customer-side infrastructure is installed by a SCE-hired general contractor or customer-hired general contractor

Charging stations are installed by a customer-hired installer or SCE-hired general contractor

### OPTIONS AVAILABLE TO UTILITY-SIDE INFRASTRUCTURE & REBATE

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>AVAILABLE TO</th>
<th>UTILITY-SIDE INFRASTRUCTURE</th>
<th>CUSTOMER-SIDE INFRASTRUCTURE</th>
<th>EVSE REBATE</th>
<th>INFRASTRUCTURE REBATE</th>
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</thead>
<tbody>
<tr>
<td>1 SCE-Built Infrastructure</td>
<td>Non-residential and multi-family</td>
<td>SCE-installed</td>
<td>SCE-installed</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2 Customer-Built Infrastructure</td>
<td>Non-residential and multi-family choosing to own infrastructure</td>
<td>SCE-installed</td>
<td>Customer-installed</td>
<td>NA</td>
<td>Lesser of 80% of SCE’s cost or 80% of the customer’s actual cost.</td>
</tr>
<tr>
<td>3 Small Site Rebate</td>
<td>Non-residential and multi-family</td>
<td>SCE-installed (outside of program)</td>
<td>Customer-installed</td>
<td>Single rebate covering EVSE and infrastructure</td>
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<tr>
<td>4 New Construction Rebate</td>
<td>New multi-family construction</td>
<td>SCE-installed (outside of program)</td>
<td>Customer-installed</td>
<td>Single rebate covering EVSE and infrastructure</td>
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EXTERNA L
# 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
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.
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)
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
Successes

• 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
THANK YOU
PROJECT PARTNERS

SOUTHERN CALIFORNIA EDISON
Energy for What's Ahead™

CITY OF SOUTH PASADENA CALIFORNIA

South Coast AQMD

UNPLUGGED PERFORMANCE

FLEET MANAGEMENT

CLEAN POWER ALLIANCE
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 Saylor II

Visalia Team
Leslie Caviglia
Nick Mascia
Lupe Garcia

And that dragon lady
ISD’s Clean Transportation and Energy Program
January 2024
Laura Iannaccone
Our County
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
01 76 Total Sites

02 1,300 chargers

03 Site Selection

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

Where We Are, Where We’re Going

County Goals & Progress
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
• 98th 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

Training, Education, Outreach
Electrifyze

Helping Residents Create A Fossil Fuel Free Los Angeles

Showing 113 cars.

Chevrolet Bolt EV LT
- All-Electric
- Electric Range: 259 miles
- MSRP: $17,995

Chevrolet Bolt EUV LT
- All-Electric
- Electric Range: 247 miles
- MSRP: $19,295

Tesla Model 3 RWD
- All-Electric
- Electric Range: 272 miles
- MSRP: $23,990

Nissan LEAF
- All-Electric
- Electric Range: 149 miles
- MSRP: $26,140

Tesla Model Y Standard Range AWD
- All-Electric
- Electric Range: 279 miles
- MSRP: $27,140

Volkswagen ID.4 Standard
- All-Electric
- Electric Range: 209 miles
- MSRP: $29,495
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

- Sum of Gasoline avoided (Gal)
- Sum of Electric miles provided (mi)
- Sum of GHGs avoided (lbs)
Challenges

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.
Contact Us

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

Address
1100 n Eastern Ave
Los Angeles, CA 90063

Email
EVProgram@isd.lacounty.gov

Online
isd.lacounty.gov

Thank You!
Questions and Answers