

Transportation Electrification Infrastructure. How hard can it be?



CSO Strategic Task Force
March 13, 2018

Putting Customers First 

Discussion Today

- DWP Goals and The Plan
- Infrastructure Examples & Barriers
- EV Opportunities for Your Organization



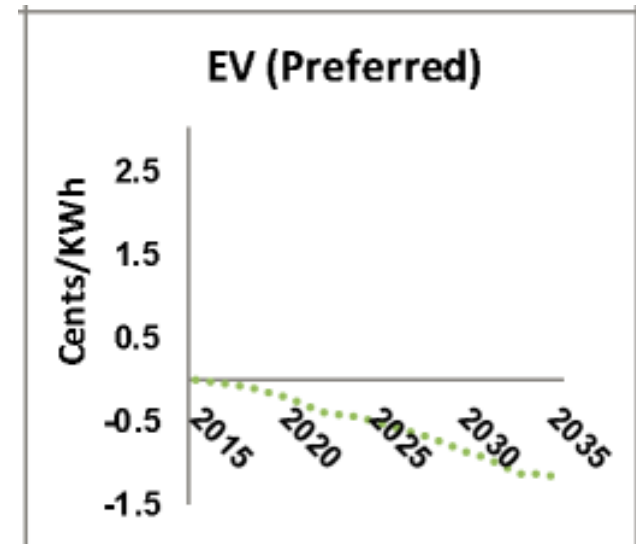
Benefitting the Bottom Line

(for Utilities and Our Customers)

- Saves costs for customer
 - Charging up an EV costs less than \$1 per gallon of gas
- Every battery electric vehicle = $\frac{1}{2}$ a house load
- The more electric charging off peak, the better for our bottom line
- Over time, all customers save money



Key Concept:
Lots of cars, charge at the right time



LADWP Initiative EV



Goals:

- EV adoption: 15% of all vehicle purchases
- 145,000 EV “equivalents” in LA
- 10,000 commercial EV chargers
(4,000 on City-owned property)

EV Business Plan Summary

Education and Outreach:

Goal: 15% of all new vehicle purchases in LA are plug-in by 2021.

70K registered EVs in City of LA

Programs: Drive, Social , HOA, etc.

LADWP & LA City Fleet:

LADWP 100%, City 50% New Cars

1,600 vehicles. — No Program Cost

Med and Heavy-Duty Fleet:

Includes POLA, LAWA, Forklift, Rail, Buses. Incentive toward charging infrastructure (Proportional to Commercial). Goals: 586 DCFC

Residential Charging:

Charge-Up LA! Rebate:\$500

Phase II: Smart Charger Rate

Commercial Charging:

Charge-Up LA! ,Workplace ,Public EVSE
\$4000 rebates, (5,236 EVSE)

Phase II: Direct Install/Green Building Ordinance.

City Owned EV Chargers Throughout City of LA:

1,850 Curbside/Parking Lot Public

1,600 City Fleet Chargers,

728 City Workplace Chargers

4,178 Total Chargers



Foundation Principles of the Program

- ***All Customers Participate:*** New/Used car, bus riders
- ***City-installed Infrastructure:*** Equitable including disadvantaged neighborhoods.
- ***Multi-Unit Dwelling Residents:*** Workplace chargers and DC fast chargers support drivers that cannot charge at home.
- ***Low-Income Car Sharing:*** For those without a car in disadvantaged City communities.
- ***Charging Hubs:*** Support for buses and EV Taxis

EV Education & Outreach

- **Education and Outreach Enhancements:**
 - LADWP Web-based EV Dashboard
 - Expanded Presentation Frequency
 - Car Dealer Program--Joint Program w/other Utilities
 - Quarterly Ride and Drive for Customers
 - Pilot an EV Carpool Program at LADWP
- **Customer Communications**
 - Call Center Support
 - Two EV Websites supported
 - Electric Service Reps Support
 - Email Support



City-Owned EV Infrastructure

5 Year Goal: 4,000 on City-owned property

Enhancements:

- ***Other City Departments***, Goal: 200/yr. commercial chargers on City parking lots (public and workplace)
- ***Curbside Chargers***: Goal 200/yr. (50 this FY) curbside chargers (pole and vault vent). BSL 50/yr.
- ***Neighborhood Charging Plazas***

City Chargers



LADWP's Current PEV Infrastructure



New Charging Plazas



Curbside Charging



1st US Utility Pole EV Charger



Other City Departments

LAX



Libraries



LADOT Parking Lots



Police Departments



Large EV FleetLAPD



Residential EV Charging

Existing Rebate Program: \$500 for 240V charger
(2,945 Rebates Since 2011)

Enhancements:

- **Develop Residential Smart Charging Program:**
 - Up to \$750 toward Smart Home Charger
 - Get Rebate for Charging EV Off-Peak (Paid by LCFS)
- **Used EV Rebate:**
 - \$450 for up to 2,000 EVs (one-time campaign)



Commercial Charging

Existing Program: Rebates up to \$4,000/charger
(up to 20 rebates/site)

Enhancements: (Now and New Rebate Program)

- Front Funding Rebates for Non-Profits/Agencies
- Direct Install (similar to Energy Efficiency).
- Other City Departments use SCPPA contractors.



Medium and Heavy-Duty EV Program

Rebates: Develop rebate schedule

LCFS: Use LCFS to fund gaps in infrastructure

Buses: Support development of inter-agency bus charging facility

Rates: Create a new EV “anytime” rate



Barriers to EV Infrastructure

- Business Case Behind It
- Not An Expert
- Getting the Word Out on Opportunities & Funding
- Access to Charging
 - Multi-Family Dwelling (56% in LA).
 - Role of Public and Workplace Charging
- Site Control



EV Opportunities for your Organization

- Set Goals (Vehicles and Infrastructure)
- Install EV chargers.
- Engage Your Employees (Ride & Drive/Take Home, EV Car Discounts, Purchase Goals, EV Car Pools)
- Funding: Leverage Grants, LADWP's Charge-Up LA! rebates, AQMD Rideshare Programs (Rule 2202), LCFS credits.
- Develop a Fleet Program



LADWP EV Program 5 year Results

Expected Program Results:

- The equivalent of 145,000 plug-in EVs in Los Angeles.
- LA's visible support for EV Technology through 10,000 City and Private Commercial Chargers for Public, Workplace, Multi-Unit Dwellings and 1600 City Plug-in vehicles.
- Support Residential Charging (5000 chargers)
- Utility Goals including GHG emission reductions, help absorb excess solar energy, better utilization of assets, and customer savings.



Questions?

