City of Los Angeles
EV Master Plan Updates

March 3, 2022

Los Angeles City Council
Energy, Climate Change, Environmental Justice, and River Committee
Item #3 - Council File #21-0890
Updated EV Adoption Goals & Infrastructure Needs

### Vehicles

- **Total PEVs:** 83,733
- **Total LD-PEVs:** 250,000 / 750,000
- **Total MHD-PEVs:** 4,000 / 12,000

### Infrastructure

- **Level 2 Chargers:**
  - Existing: 16,479
  - In-Progress: 5,836 (Estimated)
  - Gap From 2025 Goal: 21,685
  - Gap From 2030 Goal: 97,685

- **DCFC Chargers:**
  - Existing: 384
  - In-Progress: 128
  - Gap From 2025 Goal: 488
  - Gap From 2030 Goal: 2,488

---

**Achieving the New Goals Bridges the Gap needed to Spur Targeted EV Adoption**

45,000 Charging Stations by 2025
Memoranda of Understanding (MOU)s Executed:
- Los Angeles Department of Transportation (LADOT) BlueLA MOU executed in January 2022
  - Will support over 300 charging stations at over 60 locations
- General Services Division (GSD) MOU executed in Aug 2021
  - Will support over 30 projects across City of L.A.
  - GSD supported over 100 charging stations at City Hall
- Los Angeles Department of Transportation (LADOT) Bus Electrification MOU executed in June 2021
- Resiliency MOU with Department of Recreation and Parks (RAP) executed in March 2020
- Los Angeles Harbor Department (LAHD) / Port of Los Angeles (POLA) Electrification MOU executed in 2018

MOUs Under Development:
- Los Angeles Bureau of Street Lighting (LABSL) Public Curbside Charging
- Los Angeles Sanitation (LASAN)
- Los Angeles Unified School District (LAUSD) including Battery Electric Bus Charging
- Resiliency Projects with LA Zoo and GSD
The first of many resilient centers to be developed in partnership with the Department of Recreation and Parks (RAP) as part of Mayor Garcetti’s Resilient LA Plan

Green Meadows Grid Resiliency Project

Phase 1 (Rooftop Solar) Currently Under Construction
Expected Commissioning: Q1 2023
## Improvements to Used EV and Residential Charger Rebate Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Launch Date</th>
<th>Previous Rebate Amount</th>
<th>Equity Adder</th>
<th>Total Rebate</th>
<th>Total Rebate Amount (with Low Income Adder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used EV Rebate</td>
<td>February 17, 2022</td>
<td>$1,500</td>
<td>$1,000 for Low Income</td>
<td>$1,500</td>
<td>$2,500</td>
</tr>
<tr>
<td>Residential L2 Charging Station</td>
<td>January 24, 2022</td>
<td>$500 for L2 charger</td>
<td>$500 for charger installation +$500 for Low Income</td>
<td>$1,000</td>
<td>$1,500</td>
</tr>
</tbody>
</table>
Enrollment opened on November 19, 2021. LADWP received applications exceeding available funding.

A virtual, live lottery was conducted on January 25, 2022 to select Level 2 (L2) and DC Fast Charger (DCFC) applications:

<table>
<thead>
<tr>
<th>Eligible Applications</th>
<th>Selected in Lottery</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2</td>
<td>386 ($25M+)</td>
</tr>
<tr>
<td></td>
<td>189 ($12M)</td>
</tr>
<tr>
<td>DCFC</td>
<td>57 ($7.75M)</td>
</tr>
<tr>
<td></td>
<td>14 ($3M)</td>
</tr>
</tbody>
</table>

Enrollment for charging stations to fuel medium- and heavy-duty EVs remains open.
Commercial – Level 2 EV Chargers
$79.9M
16,991 Chargers

Commercial – DC Fast Chargers
$11.4M
195 DCFCs

Commercial – MDHD EV Chargers
$5.8M
80 Chargers

Residential EV Chargers
$2.5M
5,048 Chargers

Used EV
$3.4M
2,633 EVs

Residential EV Chargers
$2.5M
5,048 Chargers

Commercial – Level 2 EV Chargers
$79.9M
16,991 Chargers

EV Rebates Funding Sum FY 19-20 to date ($M)

Since 2019 LADWP has offered $101 Million In EV Rebates
Charger Installations in Disadvantaged Communities (DACs)

Charging Stations in Los Angeles

- L2 - Public: 55% DAC, 45% Non-DAC
- L2 - Non-Public: 33% DAC, 67% Non-DAC
- DCFC - Public: 27% DAC, 73% Non-DAC
- DCFC - Non-Public: 46% DAC, 54% Non-DAC
Federal: The Joint Office of Energy and Transportation was created through the Bipartisan Infrastructure Law (BIL) to facilitate collaboration between the U.S. Department of Energy and the U.S. Department of Transportation.:

- National Electric Vehicle Infrastructure (NEVI) Formula Program allocated nearly $5 billion over 5 years
- Will help states create a network of EV charging stations along designated Alternative Fuel Corridors, particularly along the Interstate Highway System
- States must submit an EV Infrastructure Deployment Plan no later than August 1, 2022

California: Governor’s Budget Proposal invests an additional $6.1 billion over five years for Zero-Emissions Vehicle (ZEV) acceleration

- Targeted investments in disadvantaged and low-income communities
- Summer: Budget passed by the Legislature and signed by the Governor
Thank You!
Appendix
Commercial EV Charging Station Rebate Programs

**Level 2 Chargers**
- $4,000 per charger
- $5,000 per charger in disadvantaged communities
- Increases access to charging at MUDs, workplaces, and public destinations

**DC Fast Chargers**
- $75,000 per charger
- Improves access to fast charging and alleviates range anxiety

**Chargers for Medium- and Heavy-Duty Vehicles**
- $125,000 per charger
- Helps electrify one of the largest source of pollution across the transportation sector
EV Charging Options & Speeds

<table>
<thead>
<tr>
<th>Location</th>
<th>Speed</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1 Charging</strong></td>
<td>Home</td>
<td>3 - 5 miles/hr</td>
</tr>
<tr>
<td><strong>Level 2 Charging</strong></td>
<td>Home, Work, Apartments</td>
<td>10 - 30 miles/hr</td>
</tr>
<tr>
<td><strong>DC Fast Charging</strong></td>
<td>Public, Plazas, &amp; Retail</td>
<td>150 – 350+ miles/hr</td>
</tr>
</tbody>
</table>
Revised EV Adoption Goals & Infrastructure Needs

Infrastructure

- **Existing Level 2 Chargers:** 1,151
- **Existing DCFC Chargers:** 337
- **In-Progress Level 2 Chargers:** 4,519 (Estimated)
- **In-Progress DCFC Chargers:** 133

Vehicles

- **Total LD-PEVs:** 73,423
- **Total MHD-PEVs:** 12,000
- **Gap From 2025 Goal:** 4,000
- **Gap From 2030 Goal:** 2,530

Achieving the New Goals Bridges the Gap needed to Spur Targeted EV Adoption

Low Carbon Fuel Standard (LCFS) Credits

Market Mechanism

Electric Distribution Utilities Generate and Sell LCFS Credits

CARB Regulation

Benefit current or future EV customers

Educate public on benefits of EV transportation

 Provide rate discounts/options that encourage off-peak charging

Outcome

• Increase EV Adoption
• Increase Charging Infrastructure
• Reduce the Carbon Intensity of Transportation Fuels
Electric Utility Base Credits for Residential EV Charging

LADWP generates about 200,000 LCFS credits per year

How LCFS Credits are Generated

Holdback LCFS Proceeds

- Metered Credits
- Non-Metered Credits
- Clean Fuel Reward Program

Starting in 2022
- 30% of base credits annually to benefit DAC & LIC

Starting in 2024
- 50% of credits annually to benefit DAC & LIC

DAC: Disadvantaged Communities
LIC: Low Income Communities
## Expand LA’s Public Charging Network

<table>
<thead>
<tr>
<th>Action</th>
<th>Facilitate Expansion of Public Charging Infrastructure in Los Angeles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time frame</td>
<td>(1-9 years)</td>
</tr>
</tbody>
</table>

### Actions and Pathways to Implementation:

1. **Target 40% of public charging stations in disadvantaged communities**
2. Develop attractive cost-based electric rates
3. Design programs to encourage installations in disadvantaged communities
4. Direct installs and public charging plazas in disadvantaged communities
5. Collaborate on city-wide initiatives to improve charging installation & permitting processes

### Key Collaborators/Stakeholders:
Public Charging Station Operators, EVSE Installers, LADWP, Mayor’s Office, Sister City Agencies, Permitting Agencies (BOE, LADBS, LADOT), City Council and committees.
Commercial – Level 2 EV Chargers
$68.4M
14,315 Chargers

Commercial – DC Fast Chargers
$9.1M
158 DCFCs

Commercial – MDHD EV Chargers
$4.7M
65 Chargers

Residential EV Chargers
$1.1M
2,181 Chargers

Used EV
$2.6M
2,092 EVs

Residential EV
Chargers
$1.1M
2,181 Chargers

Commercial – Level 2 EV Chargers
$68.4M
14,315 Chargers

Residential EV
Chargers
$1.1M
2,181 Chargers

Used EV
$2.6M
2,092 EVs

Since 2019, LADWP has offered $86 Million in EV Rebates.
Citywide EV Master Plan Development

Stakeholders

- City Council
- Mayor’s Office
- City Depts
- NCs
- EV Industry
- CBOs, EJOs, NGOs
- Angelinos (EV Drivers)
- Board of DWP

Process

1. Gather Stakeholder Input
3. Develop Draft Plan
4. Conduct Public Workshop
5. Revise and Publish