



Board Report

File #: 2022-0002, File Type: Plan

Agenda Number: 44.

**EXECUTIVE MANAGEMENT COMMITTEE
JUNE 16, 2022**

SUBJECT: ELECTRIC VEHICLE PARKING STRATEGIC PLAN

ACTION: APPROVE THE RECOMMENDATION

RECOMMENDATION

ADOPT the Electric Vehicle Parking Strategic Plan (EVPSP) (Attachment A).

ISSUE

Metro is committed to meeting ambitious emissions reduction goals through various strategies across our service region by reducing our agency emissions and serving Los Angeles County with more sustainable transit options.

The 2023-2028 EVPSP provides a strategic blueprint for sustainable, cost-effective, and efficient investments in electric vehicle charging infrastructure for Metro (Attachment A). The EV Parking Strategy complements the 2019 Metro Climate Action and Adaptation Plan and 2020 Moving Beyond Sustainability Plan, focusing on opportunities to increase employee access to EVs, support transit riders with public charging, and continue Metro's long-term transition to zero-emission vehicles.

A Metro Board approval of the EVPSP will provide a clear vision and direction to work with internal and external partners and deploy charging infrastructure at priority sites.

BACKGROUND

Metro has identified multiple strategies to meet our emissions reduction goals and contribute to California's larger climate targets. Electrification of transportation will play a critical role in meeting these objectives. The California Energy Commission estimates the State needs an additional 57,000 charging stations beyond what exists today to meet this goal. The Commission projects a need for over 700,000 chargers statewide by 2030 - a tenfold increase from 2020 levels. As the rate of EV adoption grows, Metro will need to provide services, facilities, and operations in response to a growing population of riders and employees who drive electric vehicles. In support of the above goals, Metro aims to install over 2,000 chargers through 2028, leveraging State and Federal funding opportunities and other regional efforts by utilities and local governments to expand access to EV charging across Southern California.

The 2019 Metro Climate Action and Adaptation Plan (CAAP) commits to a 79% reduction in

greenhouse gas (GHG) emissions by 2030 and specifies the measures Metro will implement to meet this ambitious goal. The CAAP strategies include installing EV charging infrastructure at Metro facilities for employee and commuter use. The EVPSP operationalizes those goals to build on existing progress and meet the 2030 targets specified in the CAAP. The EVPSP builds off the more than 100 existing EV chargers already installed at multiple Metro facilities, including 18 Park and Ride locations, since 2013.

The Electric Vehicle (EV) market in California is approaching an inflection point. As of the end of 2021, over 837,000 battery (BEV) and plug-in hybrid (PHEV) electric vehicles were registered across the State. More than one-in-three in the State were registered in the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA). While EVs represent only about 3% of the total light-duty vehicle population, new vehicle sales in the Los Angeles MSA have rapidly grown to exceed 12% of total new sales statewide. In 2020, Governor Newsom issued Executive Order N-79-20, requiring California to phase out the sale of non-zero-emission vehicles by 2035, further reinforcing the State's long-term shift toward electric and other zero-emission vehicles (ZEVs).

DISCUSSION

The EVPSP outlines the charging infrastructure requirements for Metro facilities and prioritizes charging deployment. It also identifies local, state, and federal grants and incentive programs that will be used to implement the strategy in coordination with a public-private partnership (P3) to fund and finance the deployment and operations of the planned EV charging network. The EVPSP also outlines policies and management strategies to facilitate a successful charging program for internal employee and public use.

As of May 2022, Metro operates 108 Level 2 EV charging ports, of which 81 are deployed at Park and Ride (P&R) locations for public use. There are two chargers reserved for Board use at Metro's Gateway building. Metro does not currently have chargers installed for dedicated employee use at its facilities.

Metro has established five-year goals for the three segments of the EVPSP: Employee, Transit Rider, and General Public Charging. These targets are intended to align with the goals set by Metro in the 2019 CAAP and 2020 MBS Plan. The 2023-2028 EVPSP will result in the installation of 50% of chargers within Disadvantaged Communities (DACs) and 30% of chargers within Equity Focused Communities (EFCs). The overarching EVPSP goals include:

- 1. Employee EV Charging:** Install at least four EV charging ports at each employee facility, assessing opportunities to build for the future where feasible. The EVPSP aims to provide charging at each facility by 2028 so that all employees who want to drive an electric vehicle and charge at work have the opportunity to do so. Access to workplace charging can provide reliable charging access to employees who can't charge at home. Improved charging access can help employees ultimately decide to purchase an EV and feel comfortable commuting with the vehicle's range. The visibility of workplace charging can also help improve awareness of electric vehicles among employees.

Pricing Structure

Metro will establish a pricing structure for employee charging use, consistent with California state regulation which requires EV charging to be based on \$/kWh pricing.

- 2. EV Charging for Transit Riders:** Metro operates nearly 50 Park & Ride locations, several with multiple lots, totaling over 19,000 spaces. Metro will deploy charging for at least 5% of the total Park and Ride spaces by 2028, on a path to reach 10% by 2030. Metro will increase access to charging for Metro riders through chargers installed at Metro's Park & Ride locations. Improving charging availability for transit riders can increase the likelihood that Park & Ride users will consider an electric vehicle. Park & Ride charging can provide reliable charging access to customers who can't charge at home, or double the effective electric range of EV commuters who charge at home.

Title 24 CALGreen codes require the installation of public charging at new Park & Ride facilities; Metro will go beyond this requirement by adding charging at existing Park & Ride facilities.

Pricing Structure

Metro will establish a uniform pricing structure for transit rider use, consistent with new California state regulations. Requiring payment for charging encourages efficient charger usage: if charging is free or lower cost than home charging, users will opt for the cheaper option and create unnecessary demand for the potentially limited supply of charging at Metro locations.

Metro will also assess the feasibility of enabling an EV charger pricing mechanism similar to our current LIFE program discount for transit use. Designing such a program is complicated, as EV charger pricing may need to be adjusted regularly based on utility rate schedules or changes in usage patterns by transit riders. Staff will return to the Board to request approval of future EV charger pricing rates.

- 3. Charging for General Public Use:** Metro will explore opportunities to leverage our extensive real estate portfolio, programs, and partnerships to develop fast-charging services in the LA region. Metro will also engage with developers to increase access to charging at Joint Development projects.

Prioritization Criteria

Metro has created a site-based deployment approach that prioritizes employee and public charging locations based on several quantitative and qualitative criteria, including:

- **Disadvantaged Communities (DAC) and Equity Focus Communities (EFCs):** Census tracts designated by the State of California as DACs often lag in investments in clean energy technologies, and Metro can support earlier investment in these areas. Metro also prioritized DACs as utility programs use the DAC boundaries for incentive calculations. Many DACs also

overlap with Metro's own EFC boundaries.

- **Total Number of Parking Spaces:** Sites with more spaces to accommodate chargers, increasing site cost-effectiveness and locational flexibility to identify the lowest-cost site options.
- **Location:** End-of-line locations with more customers who frequently leave vehicles for 6+ hours, 4-5 days a week, and connect with modes of transportation including bike and Metro Micro.
- **Parking Lot Type:** The Plan prioritizes garages over surface lots, where possible, due to typically lower costs and ease of installation in parking structures.
- **Availability of Utility Incentives:** Utility incentives and other grant opportunities help reduce the upfront capital costs of the site development, and Metro prioritizes sites with more valuable incentives.

After a quantitative assessment based on the above criteria, Staff also assessed sites for qualitative factors as well and adjusted its prioritization accordingly. These factors included parking utilization and feedback from parking operations staff, arrangements with third-party site ownership that could delay installation, aerial imagery review of site parking layout and potential locations, as well as feedback from utilities, where available. Staff will continue to review prioritization based on learnings as EVPSP implementation progresses.

EV Parking Strategy Development Outreach

Outreach to internal and external outreach was completed by Metro Staff to support the development of the EV Parking Strategy throughout 2020 and 2021. This included internal discussions with Metro Parking Operations, Planning, Program Management, Office of Equity and Race, Labor Relations, Office of Management and Budget, Bus and Rail division leadership, and equity liaisons over the course of the Plan development. External stakeholder outreach included presentations and discussions with:

- **Metro Sustainability Council:** Previewed the EV Parking Strategy with Council and collected feedback on the draft EV Parking Strategy, which was incorporated into the final Plan.
- **Regional Electric Utilities:** Previewed Metro's overall plans and priority sites with SCE account representative and program managers from the utility's "Charge Ready" incentive program to validate plans for utility program applications. Confirmed strategies for long-term planning on light-duty vehicle charging and medium-/heavy-duty vehicles and charging. Similar conversations occurred with the Los Angeles Department of Water and Power (LADWP) account representative to engage on their program offerings.
- **California Department of Transportation (Caltrans):** Confirmed agencies' shared interest in developing charging at Caltrans-owned sites and reviewed expectations of Plan implementation. Collaborated on prioritized site lists and outlined required steps and approvals from Caltrans to approve charging installations on sites they own.
- **Energy Resiliency Series Meetings & EV Workshop:** Gathered sustainability and climate

action leaders from across the region for a resiliency series of meetings; hosted EV advocates, utilities, and vendors for an EV workshop. Shared initial vision and goals of EV Parking Strategy, collected feedback, and incorporated it into the plan format and structure, including prioritization of sites.

- EV Charging Providers: Conducted EV RFI to identify products and services currently on the market that would align with Metro’s EV Parking Strategy for each segment.

Program Cost Estimates and Potential Revenue Sources

Staff developed cost estimates for capital and operations associated with the five-year plan period. The capital cost to deploy over 2,000 stations at 83 sites within the plan is estimated at \$49 million. The ongoing operations and maintenance costs for the chargers are estimated at \$18.4 million over five years.

EV charging operations also provide revenue sources from employee and transit rider charging and from the generation of Low Carbon Fuel Standard (LCFS) credits from EV charging, which can be sold for additional program revenue. A summary of the Plan costs, utility incentives, and revenues is shown in the tables below:

Estimated Capital Costs	\$ (M)	Planned Charging Units
Employee Sites	\$4.3	170
Park & Ride Sites	\$44.7	1,881
Total Capital Costs	\$49.0	2,051
<i>Potential Utility Incentives</i>	<i>-\$13.4</i>	
Capital Costs Less Incentives	\$35.6	

Estimated Operating Costs	\$ (M)	Planned Charging Units
Employee Sites	\$2.1	170
Park & Ride Sites	\$14.8	1,881
Program Management	\$1.5	
Total Operating Costs	\$18.4	2,051
<i>Potential LCFS Revenues</i>	<i>-\$4.8</i>	
<i>Potential Charging Revenues</i>	<i>-\$6.9</i>	
Total Operating Costs Less Revenues	\$6.7M	

Given the scale of the upfront costs for deploying charging infrastructure, third-party funding sources will be critical to deploying infrastructure at the scale planned for the EVPSP. The tables above show that available utility incentives and charging revenues are only expected to offset 27% of capital costs and 64% of operating costs for the five-year plan. Metro can accelerate EV charging deployment

beyond what would be otherwise available through outside funding sources.

Metro has crafted the EV Parking Strategy to prioritize funding availability from utility programs and other potential future grant sources. As additional funding opportunities arise, the EV Parking Strategy roll-out will pursue any possible grants or other funds to reduce the capital or operational costs of completing the EV Parking Strategy.

Public-Private Partnership (P3)

Metro will pursue a public-private partnership through a Project Development Agreement (PDA) with potential P3 developers. The intent of pursuing this path is to reduce the upfront investments required for the EV Parking Strategy. This partnership could include innovative financing, ownership, or revenue models that would help accelerate investments to increase access for charging at Metro’s employee and public facilities. The P3 could design, build, finance, and maintain the implementation of EV chargers, including the installation and maintenance of up to 3,000 chargers, which could support charger installation beyond the initial 5-year Strategic Plan. The EVPSP identifies several incentives, grants, and revenue-generating sources that could fund the capital and operating costs of the program. Consistent with prior practice, staff will work with our union partners and the P3 team to ensure there are workforce development and partnership opportunities for represented employees.

Until a P3 contract is issued, and the existing network is transferred to the selected partner, Metro will continue to operate its public and fleet charging stations. As a next step, Staff will develop the scope of the P3 with an anticipated solicitation in Spring/Summer 2023. This would allow Metro to contract with and onboard a selected partner by winter 2023. The anticipated milestones and timeline for the execution of a P3 contract are shown below:

Milestone	Expected Timing
Development of P3 scope	Fall/Winter 2022
Industry outreach	Fall/Winter 2022
RFP solicitation and evaluation	Spring/Summer 2023
Contract negotiation	Fall 2023
P3 onboarding and charging network transfer	Winter 2023

Metro expects the P3 to be a long-term relationship between the agency and the selected partner, anticipating the initial contract term to cover the five years planned in the EVPSP, with the potential for two, five-year extensions to allow the partner to continue growing the network and recover costs as utilization of chargers grows over time.

Utility Incentive Programs

As shown in the tables above, utility programs can provide significant financial support to reduce upfront capital costs of EV infrastructure deployment. SCE’s Charge Ready program and LADWP’s Commercial EV Charging Station Rebate program will provide the primary utility funding for the near-term EV Parking Strategy. Metro coordinated with the utilities regarding their programs and has aligned the plan to allow for participation in these offerings.

State, Federal, and Local Grant/Capital Funding

The Infrastructure Investment and Jobs Act, signed into law on November 15, 2021, includes over \$30 billion eligible for electric vehicle funds, including \$2.5 billion for charging and fueling infrastructure grants and \$5 billion in a National Electric Vehicle Formula Program for EV charging, among several other relevant EV appropriations.

As of February 2022, the California Department of Transportation is working to establish the grant program requirements, which will be eligible to states, local jurisdictions, metropolitan planning organizations, and public authorities with a transportation function - like Metro. These grants are expected to be implemented later in 2022.

California also funds EV infrastructure grants that may be available to Metro, though the current CALeVIP program is fully subscribed. The California VW Mitigation Trust, which funds clean transportation investments resulting from the Volkswagen emissions settlement, provided \$5M for light-duty zero-emission electric infrastructure in 2021, with an undetermined second installment in future years. This grant program would cover 100% of charger installation costs at publicly accessible government sites, and 60% of costs at workplace (employee) sites. The Infrastructure Investment and Jobs Act also provides \$384 million to California in formula funds for EV charging along designated alternative fueling corridors.

Low Carbon Fuel Standard Credit Revenues

California's Low Carbon Fuel Standard (LCFS) represents a potentially valuable revenue stream for the EV Parking Strategy, which will offset costs over the life of charger assets. Metro generates LCFS credits for electricity used to charge electric vehicles at Agency facilities. Metro can then sell those credits on California Air Resources Board's regulated market. While these credit prices are variable, they have ranged between \$150 and \$200 per credit in recent years.

DETERMINATION OF SAFETY IMPACT

This Board action will not impact Metro safety standards.

FINANCIAL IMPACT

Metro is not requesting any new allocation of funding for the EVPSP at this time. Staff will pursue a PDA solicitation to identify a P3 partner to implement the EVPSP and bring the resulting agreement back to the Board for approval of the agreement's terms.

EQUITY PLATFORM

Implementing the EV Parking Strategic Plan will significantly increase access to EV charging for Metro's employees and transit riders, supporting more widespread EV adoption. While the carbon emissions benefit from vehicle electrification is often considered in a regional (or broader) context, Metro's data indicates that 37% of the park and ride users live within two miles of their preferred stop,

illustrating that the emissions benefit from replacing gasoline car trips will largely be generated in those communities where chargers are installed. EV charging at our Park & Ride lots will also benefit marginalized groups, particularly low-income households, BIPOC (Black, Indigenous, and people of color) communities, Equity Focused Communities (EFCs), and CalEnviroScreen Disadvantaged Communities (DACs), where EV charging is often slow to develop from private investment. The EV Parking Strategic Plan includes the development of charging at Park & Ride sites in communities in South Los Angeles (La Cienega, Expo/Crenshaw, Fairview Heights, Harbor Freeway stations), East Los Angeles (Atlantic Station), Van Nuys (Van Nuys and Sepulveda Stations), and Long Beach (Willow Street and Pacific Coast Highway Stations).

As EV ownership increases among marginalized groups, these customers will experience fuel and maintenance cost savings compared to gasoline cars, reducing their overall transportation burden within household budgets, and improving equity outcomes over the long term. Similarly, the addition of accessible EV charging spaces, as required by the State Americans with Disabilities Act (ADA) code, will increase access to EV charging for people with disabilities.

Metro leveraged GIS data to prioritize locations in disadvantaged communities, as defined by the State, for the deployment of EV infrastructure within the Plan. Results of the analysis showed that 54% of charging stations and 59% of sites within the plan are located within disadvantaged communities (top quartile). About 30% of stations and 34% of sites are located within EFCs, aligned with the overall population of LA County. These communities, which Metro is prioritizing in the plan, are often the last to receive investments in new, clean energy technologies.

In locations with constrained parking, the reduction in general spaces could limit the availability of parking to non-EV owners. Metro aims to mitigate this burden by prioritizing locations with ample unused parking so as not to take up limited parking resources in high-demand locations. This impact is only expected to be short-term as EVs become more affordable and used EVs become more available.

As new charging locations open, Metro will engage local community members and provide in-language information about new charging availability and information about benefits and use. This could include launch events at Park & Rides or nearby centers of community activity. Metro will also seek to engage hyperlocal community-based organizations (CBOs) within the communities where chargers are being installed to help disseminate information about the new stations, in alignment with Metro's 2021 Community-Based Organization Partnering Strategy. Metro will continue to monitor station usage and feedback from community members and users, including via EV social networks like PlugShare and ChargeHub, to adapt the EVPSP over time to ensure the stations are useful and delivering the benefits of EVs to our employees and customers.

Finally, as Metro seeks to identify future locations for public fast charging at agency owned properties, the EVPSP will engage local CBOs through workshops or direct discussions to help identify locations that will best serve drivers in EFCs.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The EVPSP supports the implementation of Metro's Strategic Plan Goals, aligning with the following goals:

1.2.D: Improve connectivity to provide seamless journeys by improving Park & Ride experience for electric vehicle owners and providing charging access to those who lack access to home charging.

4: Transform LA County through regional collaboration and national leadership by partnering with utilities to develop EV charging and help meet City and State initiatives to accelerate the adoption of EVs through greater access to electricity as a transportation fuel.

5.7: Metro will build and nurture a diverse, inspired, and high-performing workforce by providing workplace charging to employees, and supporting those who drive EVs or have an interest in owning an EV but lack reliable locations to charge one.

Further, the EVPSP directly addresses the 2019 CAAP and 2020 MBS Plan goals. The CAAP committed Metro to a 79% reduction in greenhouse gas emissions by 2030 and included measures to install EV charging at Metro facilities for employee commuter use. The MBS Plan emissions and pollution control Goal 5.4 included exploring "further measures to reduce employee commuting emissions."

ALTERNATIVES CONSIDERED

The Board may choose not to approve the recommendation to adopt the EVPSP. Staff does not recommend this alternative because it would risk putting Metro behind regional adoption trends for electric vehicles among transit riders and employees, exacerbating future needs to deploy charging infrastructure to meet employee and rider expectations.

NEXT STEPS

Upon Board approval of this action, staff will move forward with the development and solicitation of a P3 to identify and select a partner for the implementation of the plan. The EVPSP identifies early priority projects for collaboration with utility partners in the near term and will continue to pursue these projects.

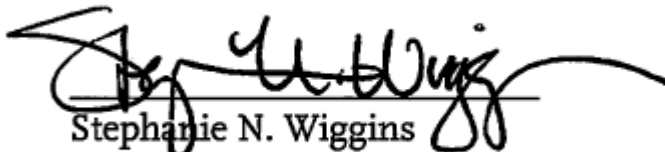
Metro staff will establish an EVPSP program management structure to oversee the deployment and partnership, develop program policies and procedures, including workforce development programs, and support outreach strategies to employees and public charging users. This interdisciplinary staff team will manage the P3 contract and coordinate with our internal partners in local divisions and facilities, as well as Metro Parking Management to plan deployments at sites under their purview, and identify needs, opportunities, and challenges specific to each location that will be factored into conceptual and detailed designs.

ATTACHMENT

Attachment A - LA Metro 2023-2028 Electric Vehicle Parking Strategic Plan

Prepared by: Craig Reiter, Senior Director, (213) 265-0691
Cris B. Liban, Chief Sustainability Officer, (213) 922-2471

Reviewed by: Nicole Englund, Chief of Staff, (213) 922-7950
Errol Taylor, Interim Chief Operations Officer, Transit Service Delivery (213) 922-3227



Stephanie N. Wiggins
Chief Executive Officer