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3rd Floor, Metro Board Room

Agenda - Final

Thursday, February 20, 2025

11:00 AM

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(ALSO APPLIES TO BOARD COMMITTEES)

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Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

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b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
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Please include the Item # in your comment and your position of “FOR,” “AGAINST,” "GENERAL COMMENT," or "ITEM NEEDS MORE CONSIDERATION."
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CALL TO ORDER

ROLL CALL

23. SUBJECT: ELECTRIC VEHICLE CHARGING STATIONS 2024-1074

RECOMMENDATION

AUTHORIZE the Chief Executive Officer (CEO) to solicit competitive negotiations Request for Proposals (RFPs), pursuant to Public Utilities Code (PUC) §130242 and Metro's procurement policies and procedures for operations and maintenance of Electric Vehicle Charging Stations.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

Attachments: Attachment A - Electric Vehicle Parking Strategic Plan 2023-2028
Attachment B - EV Users Concentrated Around the Westside, Central LA, & SG
Presentation

24. SUBJECT: ELECTRIC VEHICLE CHARGING POLICY 2025-0005

RECOMMENDATION

ADOPT Metro Electric Vehicle (EV) Charging Policy (Attachment A).

Attachments: Attachment A - Electric Vehicle (EV) Charging Policy
Attachment B - Metro EV Charger Pricing Proposal and Details
Presentation

25. SUBJECT: ADDRESSING RIDER FEEDBACK FROM TELEPHONE TOWN HALL MOTION 2025-0132

RECOMMENDATION

APPROVE Motion by Hahn and Sandoval that the Board direct the Chief Executive Officer to report back in 90 days on how Metro is addressing, promoting and/or improving the following initiatives which were received as community feedback at the telephone town hall:

A. Increased lighting throughout the system;

B. Cleanliness on buses and trains;

C. Timely elevator maintenance;

D. Promotion of DBE/SBE workshops;

E. Metro's Bike Share program; and

F. Metro's Free and Reduced programs.

26. SUBJECT: QUARTERLY REPORT: HOMELESS OUTREACH MANAGEMENT & ENGAGEMENT (HOME) 2024-1110

RECOMMENDATION

RECEIVE AND FILE the HOME Quarterly Report.

Attachments: Presentation

27. SUBJECT: FEDERAL AND STATE REPORT 2025-0009

RECOMMENDATION

RECEIVE AND FILE February 2025 Federal and State Legislative Report.

Attachments: Presentation

SUBJECT: GENERAL PUBLIC COMMENT 2025-0104

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE'S SUBJECT MATTER JURISDICTION

Adjournment

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2024-1074, **File Type:** Contract **Agenda Number:** 23.

EXECUTIVE MANAGEMENT COMMITTEE
FEBRUARY 20, 2025

SUBJECT: ELECTRIC VEHICLE CHARGING STATIONS

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer (CEO) to solicit competitive negotiations Request for Proposals (RFPs), pursuant to Public Utilities Code (PUC) §130242 and Metro's procurement policies and procedures for operations and maintenance of Electric Vehicle Charging Stations.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

ISSUE

Staff has determined that the Electric Vehicle Charging Stations solicitation constitutes specialized electric vehicle (EV) charging network solution, monitoring, operation, warranty, maintenance and equipment replacement and installation. This determination renders it appropriate that these Electric Vehicle Charging Station services be procured by a competitively negotiated process in accordance with PUC §130242. PUC §130242 states that the Board, upon a finding by two-thirds vote of all members, awarding the contract through competitive negotiation, versus a low bid procurement, will achieve for the authority a more competitive solicitation process with respect to quality, timeliness, price, and other private sector efficiencies, relevant to the integration of design, project work, and components. This competitive negotiation process is in line with LACMTA's Acquisition Policy and Procedure Manual.

BACKGROUND

In June 2022, the Board approved the 2023-2028 Electric Vehicle Parking Strategic Plan (EVPSP) as a strategic blueprint for sustainable, cost-effective, and efficient investments in electric vehicle (EV) charging infrastructure for our region.

Metro is committed to meeting ambitious emissions reduction goals through various strategies across our service region, including promoting the use of electric vehicles. Installation and ongoing operation of EV Chargers is an essential component of EV adoption. The regional availability of EV chargers must be in place to achieve successful growth in EV usage.

Metro's existing Electric Vehicle Supply Equipment (EVSE) inventory includes 108 Level 2 EVSE units, 103 of which are currently installed and active across several Metro operating divisions and park-and-ride facilities. This network will grow to as much as 3,000 chargers over the next five years and operation and maintenance of new EVSE installations will be crucial for charging across four use -types: 1) employee charging, 2) non-revenue fleet charging, 3) park-and-ride charging, and 4) public charging.

Metro's existing EVSE network is managed by a third-party vendor which has provided these networking, operations, maintenance, and installation services since August 2019. The current contract expires on July 31, 2025. The proposed competitive solicitation process will allow Metro to select a vendor to continue the operations of the existing network and support future expansion.

DISCUSSION

It is in the public's interest to utilize competitive negotiation rather than a sealed bid process to consider factors other than price in the award of contracts for maintenance and operations of the EV Charging Stations as allowed under PUC § 130242. The competitive negotiation process allows consideration of factors other than price that could not be adequately quantified or considered in a strictly low bid procurement.

Staff recommends the use of a competitive negotiation process for the Electric Vehicle Charging Stations to allow for the consideration of technical and commercial factors, such as past performance related to schedule adherence, quality and reliability, as well as price in the contract award selection process. By establishing explicit factors that identify Metro's priorities, the solicitation can use evaluation criteria important to Metro to augment price considerations.

In addition to the ability to evaluate key technical and schedule factors, the competitive negotiation process permits direct discussions and negotiations with Proposers to clarify requirements and cost prior to an award recommendation. This process minimizes the risks associated with a complex specification and scope of work by allowing the parties to clarify ambiguities and correct deficiencies.

The scope of work of the forthcoming procurement does not come into conflict with existing union agreements and does not overstep the work and performance expectations of existing operations, facilities and maintenance staff.

DETERMINATION OF SAFETY IMPACT

The approval of this recommendation will have a direct and positive impact on safety, service quality, system reliability, performance, and overall customer satisfaction. The existing and new electric vehicle charging stations are going to be operationally installed, operated, and maintained consistently across the system.

FINANCIAL IMPACT

Once the proposals are evaluated and a qualified contractor is selected, an incrementally funded

requisition shall be initiated to start the solicitation processes as per Vendor/Contract Management (VCM) policies. Funding for this action is included in future revenue projections.

Impact to Budget

Upon award, the project shall be funded with local funds. These local funds will be supplemented by revenues generated by the use of charging stations used by employees and the public. In addition, Metro will work to establish local and regional partnerships that help secure additional funds to support the installation, operation, and maintenance of these charging stations and the network

EQUITY PLATFORM

There are currently 108 EV chargers across the Metro system in 26 locations. The mix of locations include six Metro Bus and Rail Divisions where Non-Revenue Fleet are charged, and 20 public charging locations, specifically located at Metro Park and Rides. Metro's EV Parking Strategic Plan, approved by the board in 2022, also utilized state Disadvantaged Communities designations in its prioritization factors, prioritizing sites sited within Disadvantaged Communities to ensure customers in these communities benefit from access to EV charging infrastructure through the growth of Metro's EV charging network. Given that Metro Equity Focus Communities (EFCs) are defined by high rates of households without access to an automobile, this was not used as a prioritization metric for the Plan, though an estimated 26% of charging ports would be deployed in EFCs.

On future RFPs, the Diversity & Economic Opportunity Department (DEOD) will determine the applicability of an SBE/DVBE goal as part of its small business goal analysis review.

The solicitation details will be published in the four different media newspaper outlets a week before the solicitation is released. These include LA Sentinel, Asian Week, Los Angeles Daily News, and La Opinion. The Vendor Portal will also include the solicitation once released and will be available for download to all interested firms including small businesses. Procurement- Vendor Ads can be provided that include a list of vendors/contractors that will be notified by email.

Metro also conducted a demographic survey of current EV charging users in 2023 to better understand who uses and how customers experience the existing park and ride charging network. The survey results indicate that an estimated 40-50% of these users may live in, or within proximity to, an Equity Focus Community, based on their reported ZIP code, as illustrated in Attachment B. As noted, EFCs have high rates of households without access to an automobile. The survey also found that more than one in four users lack access to home charging, indicating park and ride charging provides a necessary source of charging access for those users. As EV adoption grows among residents living in multi-family buildings, which often lack charging access, locations like Metro's park and rides and workplaces can fill in as reliable charging locations, reducing barriers to EV adoption among these customers.

Additionally, the survey yielded several findings regarding demographics of EV charging users. Current Metro EV charging users:

- were more likely to identify as White/Caucasian and Asian/Pacific Islander than the general Metro ridership population, and less likely to identify as Hispanic/Latino or Black/African

American than general ridership;
- were more likely to speak English had home, and less likely to speak Spanish at home compared to general Metro ridership;
- were more likely to be high-income (over $100,000 household income) and less likely to be low income (less than $50,000 household income) than general ridership; and
- were more likely to live in single-family detached homes and less likely to live in either small (2 -4 unit) or large (5+ unit) multifamily buildings.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

While this item does not directly encourage taking transit, sharing a ride, or using active transportation, it is a vital part of Metro operations as it supports Metro's increasing share of electric non-revenue vehicles, encourages riders and employees to use low-carbon alternatives like electric vehicles to travel to work, and enables Metro riders to use electric vehicles as a first and last mile solution.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

These recommendations support Metro Strategic Plan Goal No. 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 with partners to develop EV charging and help meet City and State initiatives to accelerate EV adoption 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 are interested in owning an EV but lack reliable locations to charge one.

These goals strive to position Metro to meet the CAAP commitment of a 79% reduction in greenhouse gas emissions from internal operations by 2030 and include measures to install EV charging at Metro facilities for employee commuter use.

ALTERNATIVES CONSIDERED

The Board may choose to procure the operations and maintenance of EV Charging Stations using a low bid process, but this methodology is not recommended. The sealed bid process does not

adequately account for any technical superiority of performance, reliability, or system life cycle costs that one firm's equipment or solution may have over another since the process must award to the lowest responsive and responsible bidder. For these reasons, staff does not recommend this alternative. The competitively negotiated procurement process will provide for the evaluation of critical non-price related factors in the source selection process.

NEXT STEPS

Staff will proceed with a competitively negotiated solicitation for the maintenance and operations of the Electric Vehicle Charging Stations.

ATTACHMENTS

Attachment A - Electric Vehicle Parking Strategic Plan 2023-2028
Attachment B - EV Users are concentrated around the Westside, Central LA, and San Gabriel Valley

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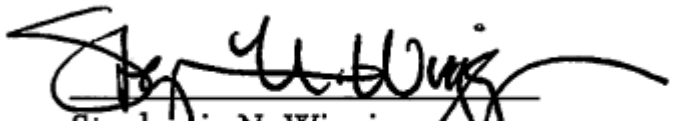

Stephanie N. Wiggins
Chief Executive Officer

Los Angeles County
Metropolitan Transportation Authority

Electric Vehicle Parking Strategic Plan

2023–2028

Metro

June 2022

Table of Contents

Executive Summary

The 2023-2028 Electric Vehicle Parking Strategic Plan (EV Parking Strategy or Plan) provides a strategic blueprint for sustainable, cost-effective, and efficient investments in electric vehicles and charging infrastructure for Metro. The EV Parking Strategy complements the 2019 Metro Climate Action and Adaptation Plan and 2020 Moving Beyond Sustainability plan, focusing on opportunities to increase access to employee, transit-rider, and public charging and supporting Metro's long-term transition to zero-emission vehicles.

The EV Parking Strategy offers data-driven insight into the current state of the Southern California market for electric vehicles (EVs), as well as the policy and regulatory directives driving regional and state-wide efforts to increase EV adoption. The plan then offers recommended goals, strategies, and prioritization plans for achieving identified objectives in each of the core EV Parking Strategy focus areas:

Table 1. EV Parking Strategy Goals and Enabling Strategies

EVPSP Goals	**Employee Commuting** At least **4** charging ports **at each employee facility**	**Transit Riders** Charging for **5% of Park & Ride** spaces, including 20% EV-ready for Capital Projects	**Public Charging** Evaluating new **multi-modal opportunities** for fast charging siting
Enabling Strategies	Install chargers and make-ready[1] charging infrastructure to **plan for long-term growth** **Planning for at least 50%** of charging ports installed in Disadvantaged Communities **Leveraging local and state partnerships** for incentives and coordination to support EV adoption Proactive EV **charging network management** and **re-investing program revenues** to support future growth		

For each segment of the EV Parking Strategy, we review a market analysis, technical requirements, and operational considerations for the charging network.

Based on existing internal and public data, we project the upfront capital and operational costs of achieving Metro's EV Parking Strategy objectives and review available incentives to reduce these costs. The EV Parking Strategy concludes with proposed market-informed metrics to track Metro's progress toward EV Parking Strategy goals.

[1] Make-ready infrastructure includes all of the supporting electric infrastructure and upgrades to bring electricity from the power source to the parking space. EV chargers are installed on a completed "make-ready."

1. Introduction and EV Parking Strategy Objectives

Metro has committed to helping the state meet ambitious emissions reduction goals through a variety of strategies and measures across our service region by reducing our own agency emissions and serving the Los Angeles (LA) region with more sustainable transit options that get people out of their cars. As the population of electric vehicle (EV) drivers grows, Metro will need to design our services, facilities, and operations to serve a growing population of riders and employees who drive EVs. This EV Parking Strategy defines the charging infrastructure requirements, outlines a prioritized approach to charging deployment, and proposes the costs and benefits associated with completing the EV Parking Strategy. The Plan also defines policies and management strategies to facilitate a successful charging program for internal operations and public use.

Purpose of the EV Parking Strategy

This EV Parking Strategy provides a framework to help Metro meet growing rider and employee interest in zero-emission vehicles. It also positions Metro to complement other regional and statewide efforts by supporting EV adoption through increased access to daily charging. The EV Parking Strategy addresses Metro's employee, transit-rider, and public charging segments. A separate initiative will address Metro's non-revenue fleet (NR) charging. The increased adoption of EVs among employees and riders will also enable fuel and maintenance savings for our employees and patrons, compared to existing fossil-fueled vehicles.

Metro's Role in Vehicle Electrification

The 2019 Metro Climate Action and Adaptation Plan[2] (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. CAAP measures include installing EV charging infrastructure at Metro facilities for employee commuter use. The EV Parking Strategy operationalizes those goals to build on existing progress and meet the 2030 targets specified in the CAAP and reinforced in the 2020 Moving Beyond Sustainability (MBS) plan.[3]

Regional and state efforts to electrify the transportation sector further necessitate the need for a comprehensive EV Parking Strategy. In 2020, Governor Newsom issued Executive Order N-79-20, requiring California to phase out the sale of non-zero-emission vehicles by 2035,[4] further reinforcing the state's long-term shift toward electric and other zero-emission vehicles. At the local level, Metro was among the leaders of the Los Angeles Cleantech Incubator (LACI) Transportation Electrification Partnership, which has defined the region's Zero Emissions 2028 Roadmap.[5] The latest Roadmap edition calls for achieving three goals by 2028, supported individually and collaboratively by the public and private contributors:

> Achieve 80% EV market share (vehicles sold) and 30% of the total passenger vehicle population.

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[2] Metro (2019). Metro Climate Action and Adaption Plan 2019. http://media.metro.net/projects_studies/sustainability/images/Climate_Action_Plan.pdf

[3] Metro (2020). Moving Beyond Sustainability Strategic Plan 2020. http://media.metro.net/2020/Moving-Beyond-Sustainability-Strategic-Plan-2020.pdf

[4] Executive Department, State of California, 2020. Executive Order N-79-20. Issues September 23, 2020. https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf

[5] LACI (2019). Transportation Electrification Partnership Zero Emissions 2028 Roadmap 2.0. Published November 26th, 2019. https://laincubator.org/wp-content/uploads/LA_Roadmap2.0_Final2.2.pdf

> Shift 20% of all single-occupancy vehicle trips to zero-emission public transportation, bikes, or other active transportation modes.

> Advance zero-emission solutions for all public investments in surface vehicles and related infrastructure for goods movement.

Metro will play a vital role in reaching all three of these targets, whether through our plans to electrify the bus fleet or future capital investments that will support the region's sustainable growth. The LACI Roadmap also targets the installation of 84,000 public and workplace chargers across the region. Transportation electrification at Metro's facilities will enhance efforts by other partners, including the City of Los Angeles' 2019 Green New Deal and the Los Angeles Department of Water and Power (LADWP), Southern California Edison (SCE), and the Southern California Public Power Authority (SCPPA), who have also increased their investments in transportation electrification.

State and Regional Progress

The Electric Vehicle (EV) market in California is approaching an inflection point. As of the end of 2020, over 625,000 battery (BEV) and plug-in hybrid (PHEV) electric vehicles were registered across the state. Of these, more than one-in-three in the state were registered in the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA). While these EVs represent only about 2.5% of the total light-duty vehicle population, new vehicle sales in the Los Angeles MSA have rapidly grown to exceed 8% of total new sales statewide.[6] In 2020, Governor Newsom issued Executive Order N-79-20, requiring California to phase out the sale of non-zero-emission vehicles by 2035,[7] further reinforcing the state's long-term shift toward electric and other zero-emission vehicles (ZEVs).

At the same time, global automobile manufacturers continue to announce significant investments in EV market growth while phasing out internal combustion engine technologies. Ford and General Motors (GM) combined have planned $56 billion of investment in EVs by 2025; Kia, Mitsubishi, Subaru, Volkswagen, and Volvo all project between 40-60% of their global sales will be electric by 2026. GM is also targeting the phase-out of diesel and gas powertrains entirely in the light-duty segment by 2035.[8] In 2021, Tesla exceeded 900,000 electric vehicles delivered globally for the first time.[9] Bloomberg New Energy Finance projects that battery pack prices – the main driver of EVs' higher incremental costs – will fall below $100/kWh by 2024 and drop another 40% by 2030 – enabling EVs to have a price advantage over comparable gasoline vehicles.[10] These market factors, bolstered by evolving consumer preferences, put EV adoption on a path for significant growth in the coming decade.

In projecting a path to meet the state's long-term greenhouse gas reduction goals, the California Air Resources Board (CARB) forecasts more than doubling BEVs' market share to more than 25% of vehicle sales in 2025 and nearly 50% in 2030. This trajectory would put more than eight

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[6] California Energy Commission. California Energy Commission Zero Emission Vehicle and Infrastructure Statistics. Data last updated April 30, 2021. Retrieved 6/24/2021 from https://www.energy.ca.gov/zevstats

[7] Executive Department, State of California. Executive Order N-79-20. Issues September 23, 2020. https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf

[8] Car and Driver. "Here are all the promises automakers have made about electric cars," June 26, 2021. https://www.caranddriver.com/news/g35562831/ev-plans-automakers-timeline/

[9] Tesla. Tesla Q4 2021 Vehicle Production Deliveries, January 2, 2022. https://ir.tesla.com/press-release/tesla-q4-2021-vehicle-production-deliveries

[10] Bloomberg New Energy Finance, Electric Vehicle Outlook 2021 – Executive Summary. Accessed June 30, 2021. https://bnef.turtl.co/story/evo-2021/page/7/1?teaser=yes

million zero-emission vehicles on the road, primarily BEVs, by 2030.[11] Today, the Los Angeles MSA represents 37% of the EV population in the state. If CARB's projections are realized, this will equate to three million EVs on the road in the Los Angeles MSA in 2030, or 12-fold growth over the decade.

Metro has identified multiple strategies to help the state meet ambitious emissions reduction goals – and more broadly, to serve the LA region by reducing vehicle trips through more sustainable transit options. As the rate of EV adoption grows, Metro will need to evolve our services, facilities, and operations to serve a growing population of riders and employees that drive electric vehicles. The EV Parking Strategic Plan defines the charging infrastructure requirements, outlines a prioritized approach to charging deployment, and proposes the costs and benefits associated with completing the EV Parking Strategy. The EV Parking Strategy also defines policies and management strategies to facilitate a successful charging program for internal operations and public use.

Assessment of Local and Peer EV Charging Deployment

Implementation of the EVPSP will establish Metro as a leader both within Southern California and among peer agencies concerning support for the oncoming growth of EV drivers. Staff reviewed progress and/or plans for EV charging from local and national peers or sister agencies for comparison with the Plan:

- **City of Los Angeles:** Over the last five years, the City has installed approximately 350 charging stations at 19 locations across the city, 140 chargers are designated for city fleet vehicle use, while 210 are made available for public and city employee use. The City Council recently passed a motion to develop and implement an Electric Vehicle Master Plan to aid in the electrification of 10,000 city fleet vehicles. The city's plan would add charging at more than 600 city-owned properties.[12] As of early 2021, there were just over 11,000 commercial charging stations in Los Angeles largely funded by incentives from the Department of Water and Power. Several city agencies installed over 1,300 of these stations, including the Bureau of Street Lighting, and the Departments of Transportation and General Services. This surpasses the mayor's 2023 goal of 10,000 stations two years ahead of plan. The city targets 25,000 chargers installed by 2025, of which Metro's EVPSP would be in direct support.[13]
- **Los Angeles Department of Water and Power (LADWP):** In addition to funding incentive programs for commercial charging stations, LADWP has supported the installation of 430 chargers on streetlight poles across the city.
- **Bay Area Rapid Transit (BART):** BART is in the pilot stage of EV charging for its facilities, deploying 44 chargers at two rail station parking facilities. BART's board adopted an EV Charging Policy[14] in November 2021, which acknowledged the District's role to reduce the environmental footprint of regional transportation, as the largest operator of vehicle parking for a rail operator in the state. The Policy sets high-level goals and strategies for EV charging deployment but does not contain long-term targets for charger deployment.

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[11] California Air Resources Board, Revised Draft – 2020 Mobile Source Strategy, April 23, 2021.
https://ww2.arb.ca.gov/sites/default/files/2021-04/Revised_Draft_2020_Mobile_Source_Strategy.pdf
[12] CleanTechnica.com, Electric Vehicle Master Plan" — 10,000 EVs For Los Angeles, April 12, 2022.
https://cleantechnica.com/2022/04/12/electric-vehicle-master-plan-10000-evs-for-los-angeles/
[13] LADWPnews.com, Mayor Garcetti Announces the City Has Helped Install 10,000 EV Chargers, January 6, 2021.
https://www.ladwpnews.com/mayor-garcetti-announces-the-city-has-helped-install-10000-ev-chargers/
[14] BART, Electric Vehicle Charging Policy, November 18, 2021.
https://www.bart.gov/sites/default/files/docs/BART%20Electric%20Vehicle%20Charging%20Policy%20-%20Final.pdf

> **City of Boston:** Boston released its Zero-Emission Vehicle Roadmap[15] in 2022, which broadly covers the city's goals to support widespread adoption of electrification, ensure affordable, convenient access to charging, and electrify the municipal fleet. Targets for the roadmap include ensuring every household in the city is within a 10-minute walk of an accessible EV charging station by 2040 and installing 1,055 level 2 chargers owned by the city or privately by 2025.

While many peer transit agencies are actively planning for and implementing bus electrification plans, a scan of other large peer transit agencies' sustainability planning did not identify long-term or large-scale EV planning for employee or transit rider use on the scale envisioned in the EVPSP.

Metro's Current EV Progress

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 (see Figure 1 below). Metro's non-revenue fleet operates 25 chargers, and two chargers are reserved for use at Metro's Gateway building. Metro's charging equipment is compliant with the Open Charge Point Protocol (OCPP), which allows for the flexibility and interoperability of various charging network service providers across Metro's network and on existing charging hardware. This important feature provides ease for scalability and a level of "future-proofing" of charging assets to allow them to operate with new charging services as needed in the future. Metro will continue to require OCPP-compliant hardware in future procurements or deployments as part of the EVPSP.

P&R chargers are installed across 18 locations, with three to four ports installed at most sites. Union Station Gateway has the most, with 13 ports installed. From July to October 2021, the P&R chargers averaged 10-11 sessions per charger each month, down from a peak of 50 sessions per charger per month in January 2020, before the beginning of the coronavirus pandemic.[16] Two locations (Sierra Madre Villa on the L Line [Gold] and Willow on the A-Line [Blue]), had consistently higher use, with 17-32 charging sessions per month. Charging events between July and October 2021 have averaged between 17 and 21 kilowatt-hours (kWh), or roughly 55-70 miles of electric range per session. During those months, 68 P&R stations provided electricity for approximately 50,000 zero-emission miles per month. These stations also delivered $1,600-$1,800 in revenue per month from drivers paying for station usage, or $2.36 per session. This equates to $0.12 per kWh of energy delivered, or just over $1 per gallon equivalent of gasoline, enabling significant savings for EV drivers compared to driving a fossil-fueled car.

Metro's current network of 108 chargers is operated and maintained through a contract with Axxera, which is set to expire in August 2022. As described in Sections 5 and 6 below, Metro plans to extend this contract for up to 24 months while soliciting a long-term partnership solution to deploy the full EVPSP.

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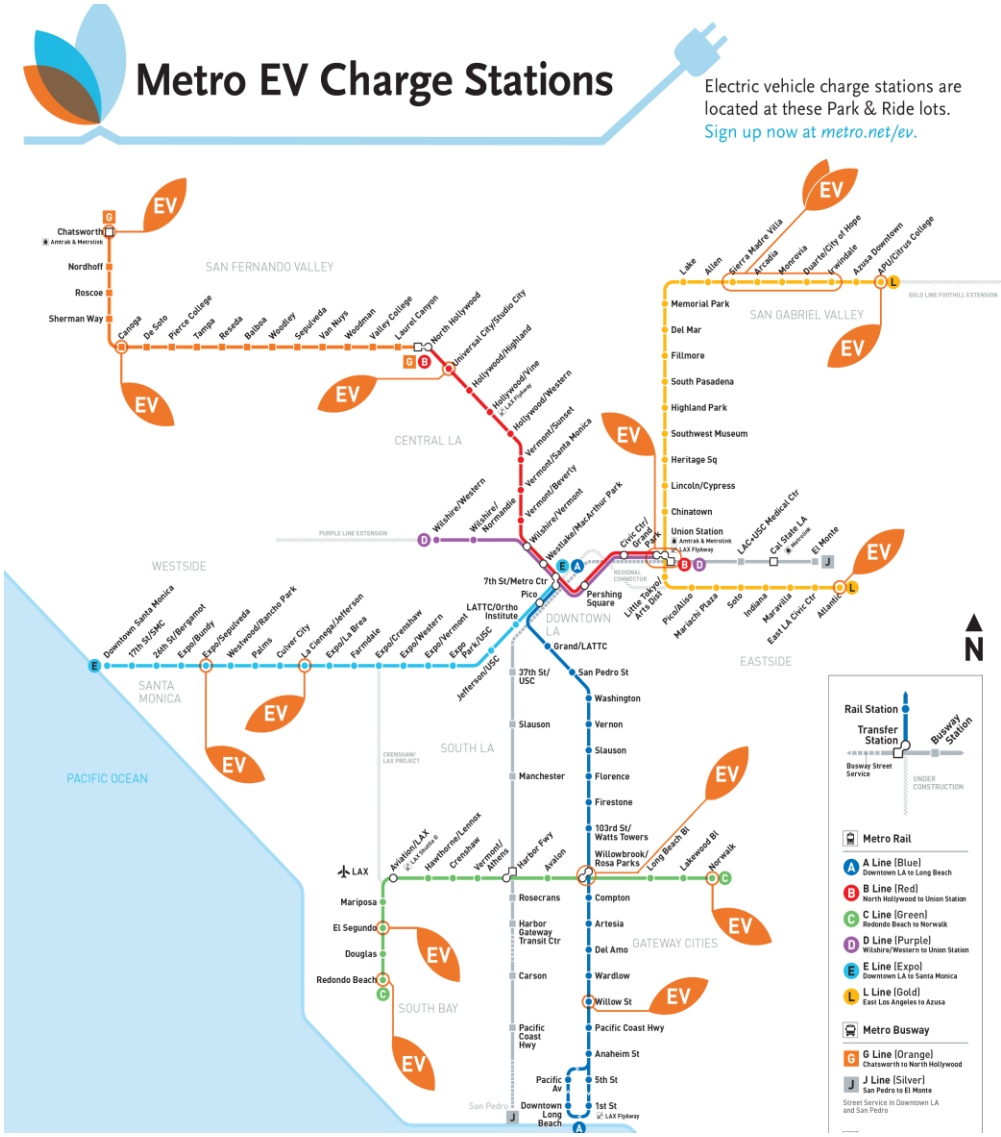
[15] Boston.gov, City of Boston Zero Emission Vehicle Roadmap, 2022. https://www.boston.gov/sites/default/files/file/2020/12/Boston%20ZEV%20Roadmap_1.pdf

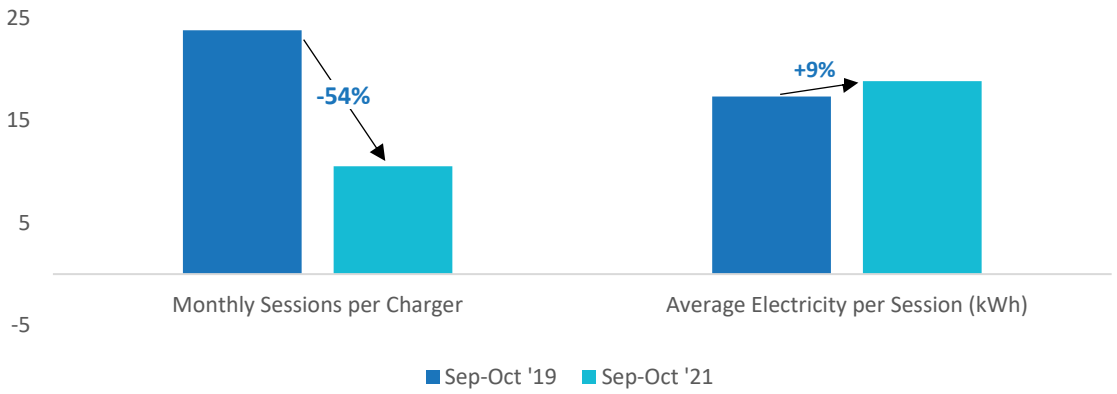
[16] Charging station session and consumption data for public and non-revenue Chargers in 2021 may not be representative of typical historical (or future) months due to impacts of the coronavirus pandemic on travel and commuting patterns.

Figure 1. Metro P&R locations with EV charging stations



Analysis of P&R charging data from July through October 2021 displays a significant decline in usage compared to the months preceding the beginning of the COVID-19 pandemic. This indicates, as expected, that stay-at-home orders and reduced commuting reduced EV charger use, which has not yet rebounded despite increases in vaccination rates this year and the economy's reopening. Comparing the available data from, September-October 2021 with the same months in 2019, before the pandemic, each charger averaged less than half as many sessions per month, and stations saw a 40% reduction in the amount of electricity delivered. Interestingly, the average energy used per session has increased in September and October 2021, with drivers using 9% more electricity each time they charged at a P&R location. While the long-term effects of remote work may change the dynamics for commuters who need daily charging at park and rides. Metro's data continues to show rebounds in the usage of P&R chargers. Comparing the month of April 2021 to April 2022, charging energy dispensed at Metro's P&R chargers increased by 28% and monthly transactions increased by 46%, though they remain below pre-pandemic levels.

Figure 2. Comparison of 2021 P&R Charging Usage to Pre-Pandemic Months

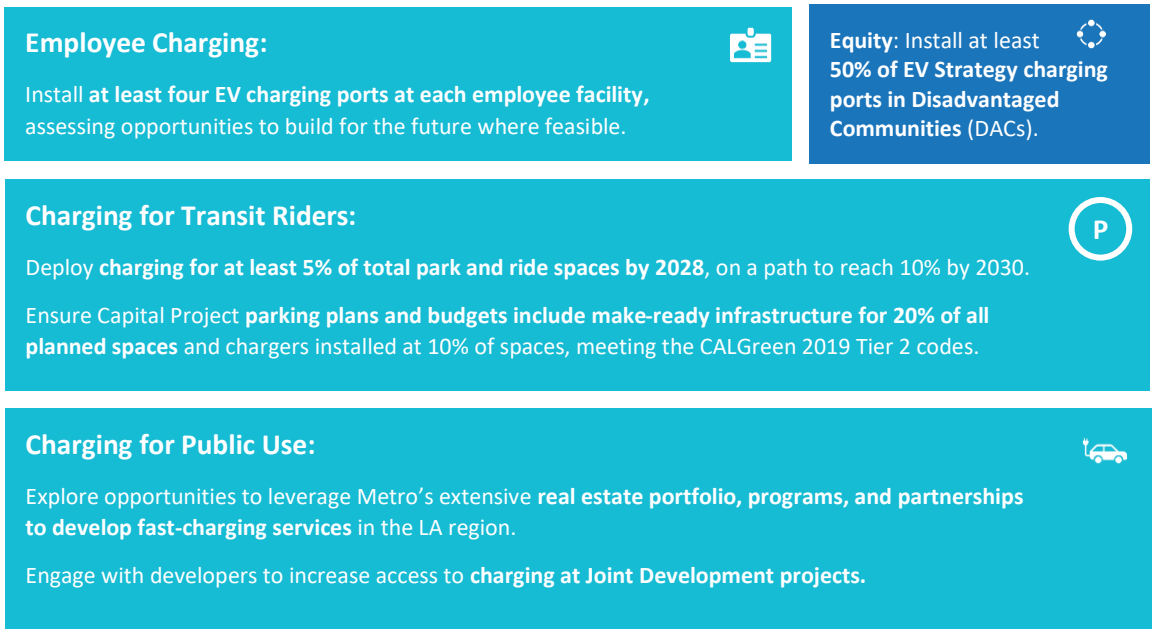


Twenty non-revenue (NR) fleet chargers are deployed across seven Metro facilities, with half of these installed at Union Station Gateway. Other divisions and locations have one to three chargers installed. These chargers support 21 BEVs that are active in the NR fleet, including 20 Chevy Bolt sedans and one Kia Niro SUV. While the 10 chargers at Gateway do not report usage data, the other 10 chargers logged 288 sessions per month between July and October 2021, or approximately 1 session per charger per day. Average charging sessions for the month were between 11-17 kWh or 35-55 miles per session. Metro does not currently have charging stations installed for employee commuting use. A 2020 survey indicated that at least 17 employees commute via electric vehicle to nine different Metro facilities.

EV Parking Strategy Objectives

Metro has established five-year deployment goals for the three segments of the EV Parking Strategy: Employee, Transit Rider, and Public Charging. These targets are intended to align with the goals set by Metro in the 2019 CAAP and 2020 MBS Plan. Underlying each of these goals, we aim to complete the EV Parking Strategy equitably, installing a majority of chargers in Disadvantaged Communities.

Figure 3. EV Strategy Goals by Charging Segment



Meeting the objectives of the EV Parking Strategy will require close coordination between the Office of Sustainability, internal Metro stakeholders, and external parties. These entities and their roles are listed in Appendix A.

While the EV Parking Strategy is designed to span 2023-2028, additional activities and investments will be needed after these five years to continue supporting EV adoption and usage among riders and employees. The EV market is only 10 years old but has seen significant technological advancement and growth during that time. By carefully monitoring future market conditions, Metro can remain responsive and adaptable to this new and evolving market.

EV Parking Strategy Development Outreach

The Office of Sustainability conducted extensive internal and external outreach and coordination in support of the development of the EV Parking Strategy.

Internal Stakeholders

> Local Division Leadership: As sites are evaluated for utility incentive programs, engaged Division staff to identify local conditions and any on-the-ground challenges to deploying employee infrastructure.

> Parking Operations: Confirmed shared interest in developing EV charging for P&R patrons and reviewed prioritized P&R locations to validate the feasibility of charging deployment (and target number of charging spaces) at each site. Reviewed parking utilization and identified potential challenges at priority sites.

> Equity Liaisons: Reviewed overall EV Parking Strategy and collected feedback on rapid equity platform assessment, which was incorporated into the Plan. Discussed impacts of EV Parking Strategy deployment on equity groups.

External Stakeholders

- 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.
- 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 & EV Workshop: Gathered sustainability and climate action leaders from across the region for the resiliency series; hosted EV advocates, utilities, and vendors for an EV workshop. Shared initial vision and goals of EV Parking Strategy, collected feedback, and incorporated into 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.

Plan Organization

The EV Parking Strategy is organized around the four segments of EV charging outlined in the objectives above:

- **Section 2** defines the plan and prioritization of Employee charging locations
- **Section 3** defines the plan and prioritization for Transit Rider charging, including both existing sites and yet-to-be-developed capital projects
- **Section 4** defines the areas of focus for Metro to explore developing Public Charging
- **Section 5** outlines the high-level cost estimates for the five-year program and incentives that are currently available to offset EV Parking Strategy deployment costs
- **Section 6** details the near-term activities staff will undertake to plan for a successful implementation of the EVPSP
- **Section 7** reviews long-term actions considered as part of the EVPSP
- **Section 8** summarizes the recommendations of the EV Parking Strategy and lists measures of success

2. Employee Charging

Metro's sustainability commitment extends beyond our facilities to address impacts from employees – including their daily travel to and from work. Metro can support zero-emission commuting among employees by providing access to EV charging at employee parking facilities, installing charging at each of the Agency's employee locations by 2028 and a longer-term target of electrifying 10% of total employee parking spaces.

Overview of Employee Charging

Metro employs 9,800 individuals across the region, approximately 75% of which drive to work.[17] According to the 2020 survey for Southern California Air Quality Management District's (SCAQMD) Rule 2202, Metro had 17 employees across nine locations who responded that they commuted via zero-emissions vehicle, though the actual number of EV drivers is likely higher. Increasing access to charging at workplaces would accelerate performance with Rule 2202 to reduce emissions from employee commuting[18] and be in alignment with the U.S. Department of Energy's national Workplace Charging Challenge, launched in 2013.[19]

Access to workplace charging can double the effective electric range of EV commuters who charge at home. Employee charging can also break down barriers to EV adoption for employees without access to charging at home, either because they rent, live in multi-family dwellings, or park on-street. Improved charging access can help employees ultimately decide to purchase an EV and feel comfortable commuting with the vehicle's limited range compared to a gas vehicle. The visibility of workplace charging can also help improve awareness of electric vehicles among employees.

"I have always wanted to buy an EV but cannot due to the fact that I would not be able to charge my car at work."

– Survey response from Metro Equipment Maintenance Employee

Employee Charging Infrastructure Requirements and Approach

Metro's approach to installing EV charging is guided by two principles:

> 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; and

> Assess the long-term needs for employee charging, targeting 10% of employee parking spaces by 2030, enabling more employees to charge their vehicles at work as the population of EV drivers grows over the decade.

Metro plans to install Level 2 charging for employees. Because workplace dwell times are typically eight hours or longer, slower Level 1 charging could suffice for many employees. However, as EV battery ranges continue to improve, drivers can rely less on daily "top-up" charging, and instead use workplace charging every few days or weekly, allowing more drivers

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[17] *According to a 2017 Metro employee survey (conducted in accordance with Rule 2202 of the South Coast Air Quality Management).*

[18] *South Coast Air Quality Management District. Rule 2202 – On Road Motor Vehicle Mitigation Options Employee Commute Reduction Program Guidelines. February 5, 2016.* http://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-2202/rule-2202-employee-commute-reduction-program-guidelines-(ecrp).pdf?sfvrsn=10

[19] *U.S. Department of Energy Alternative Fuels Data Center (2021). Workplace Charging for Plug-In Electric Vehicles. Accessed 6/27/2021.* https://afdc.energy.gov/fuels/electricity_charging_workplace.html

to use fewer chargers over a typical week. Utilizing Level 2 chargers will reduce the total number of required workplace charging stations per site and increases cost-effectiveness compared to the costly trenching, conduit, and cabling distances associated with installing Level 1 chargers more ubiquitously across parking lots. Metro will be able to leverage charging management software to reduce power draws of level 2 chargers to limit demand and mitigate higher electric costs and potential strain on the electric grid. Metro may further evaluate the need for additional types of charging at employee and P&R locations throughout this Plan and may install additional Level 1 charging to complement planned Level 2 chargers in future phases. Charging equipment procured by Metro will continue to be OCPP compliant to allow for future flexibility around charging services and providers.

Proactively anticipating changing employee needs will enable Metro to adapt and evolve these charging requirements over time. The COVID-19 pandemic demonstrated how quickly commuting patterns can change, and its long-term impacts on office work are still unclear. Additionally, commuting distances may be impacted by the high cost of housing, as more employees live further away from work. Metro plans to conduct employee research (e.g., surveys or focus groups) to better understand current levels of interest and expected needs for workplace charging.

Site Prioritization Plan and Charger Needs

Metro's 2023-2028 prioritization plan for employee charging infrastructure is summarized in Table 2 below. Metro's site-based approach prioritizes locations for employee chargers based on the following criteria:

- **Locations within Disadvantaged Communities:** 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.
- **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. See Section 5 for more detail on utility incentive programs.
- **Parking Lot Size, Type, and Layout:** Larger parking lots provide more flexibility in locations for charging installation without disrupting users. The EV Parking Strategy also considers garages over surface lots, where possible, due to typically lower costs and ease of installation in parking structures.

Metro will evaluate each site's employee parking, driver usage, and future site plans to determine the appropriate level of charging, targeting at least four chargers at each site as feasible. Metro may revisit this prioritization based on other facilities' projects that align with charging installation.

Table 2. Employee charging facilities installations by year

Prioritization		Facility			
Priority	**Fiscal Year**	**Metro Property**	**DAC**	**Lot Type**	**Utility**
1	2023	Loc 99	No	Garage	LADWP
2		Div 18	DAC	Lot	SCE
3		Div 7	No	Garage	SCE
4		Div 4	No	Lot	SCE
5		Loc 60	DAC	Lot	SCE
6		Div 10	DAC	Lot	LADWP
7	2024	Div 15	DAC	Lot	LADWP
8		Loc 30	No	Garage	LADWP
9		Div 1	DAC	Lot	LADWP
10		Div 13	No	Garage	LADWP
11		Div 5	DAC	Garage	LADWP
12		Loc 84	No	Lot	LADWP
13	2025	Div 3	DAC	Garage	LADWP
14		Loc 64	DAC	Garage	LADWP
15		Div 21	DAC	Lot	LADWP
16		Div 2	DAC	Lot	LADWP
17		Div 8	No	Lot	LADWP
18		Div 9	DAC	Garage	SCE
19	2026	Div 20	DAC	Lot	LADWP
20		Div 16	DAC	Lot	LADWP
21		Div 24	DAC	Lot	SCE
22		Div 11	No	Lot	SCE
23		Loc 63	DAC	Lot	LADWP
24		Loc 62	DAC	Lot	LADWP
25	2027	Div 14	DAC	Lot	SCE
26		Div 22	No	Lot	SCE
27		Loc 34	No	Lot	Vernon
28		Loc 66	DAC	Lot	SCE
29		Loc 110	DAC	Lot	SCE
30		Loc 55	DAC	Lot	LADWP

Employee Charging Implementation Considerations

Alignment with NR Infrastructure Planning

For sites where employee and non-revenue parking are nearby, Metro will consider opportunities to deploy charging infrastructure for both uses in conjunction to take advantage of economies of scale. Several initial applications to Southern California Edison's EV charging infrastructure incentive program include both employee and non-revenue chargers to improve candidate sites' viability for program funding. Parking and charging may also be shifted between employee and non-revenue use depending on the demand for the charging over time. For example, if a location has a high demand for employee charging but has not been assigned significant NR EVs, chargers could be allocated to employee use until the NR EV population increases and additional chargers are installed. This will allow existing chargers to be used more efficiently and delay the need to budget for and install additional employee chargers. These arrangements will be considered on a case-by-case basis to ensure employee parking does not impact NR fleet operations.

Charging Management and Access

The employee charging network will require active management to ensure reliability for employees and oversee service contracts and maintenance. Metro will require at least one full-time employee to oversee the network systemwide, as well as local liaisons within facilities at each Division to respond to local issues or questions as they arise. Employees will request access to the charging network from the employee charging program manager, who will also provide onboarding materials to educate users on the charging equipment, costs, and best practices to share with colleagues. Metro will explore opportunities to intelligently control charging loads, reduce usage and demand during peak time-of-use electricity hours, and increase participation in demand response programs, reducing costs and strain on the grid. These components of employee charging load management should only be enacted if employees can be guaranteed sufficient range to complete their driving needs.

"There need to be enough chargers to make this practical, remembering that many employees will park for 8 hours and never move their vehicles, even after they are fully charged."
– Survey response from Metro RFS Employee

Local liaisons will need to work with the population of EV users at their locations to ensure fair and equitable access. If demand for employee charging outstrips the available number of ports, guidelines may need to be established or modified for each location based on the work patterns at each site or other local constraints. Metro will also consider the potential to implement reservation systems that can be accessed via mobile app or internet so that employees can book a charging window in advance and plan their charging needs more confidently.

Charger Pricing Structure

Metro will establish a pricing structure for employee use, consistent with California state regulation which requires EV charging to be based on $/kWh pricing, and clearly show any additional charges or fees. Requiring payment for charging avoids concerns of providing benefits (free charging) to EV owners that are not available to non-EV employees. Pricing for employee charging also encourages efficient charger usage: if employee charging is free or lower cost than home charging, employees will opt for the cheaper option and create unnecessary demand for

the potentially limited supply of charging at Metro locations.[20] Metro will aim to establish fair market pricing for use of its chargers and has no intention of overcharging employees or public users. Pricing may need to be adjusted regularly based on utility rate schedules or changes in usage patterns by employees. Moving forward, Metro will work in concert with the Board to approve new pricing rates as they are updated in the future.

The pricing structure will also consider more dynamic pricing options to improve the efficient use of chargers. Strategies may include using time-of-use prices to align with utility rate costs or idle fees, which add an additional charge (e.g., $/hour) for the time employees remain in a charging space after their vehicle has completed charging and a reasonable grace period has passed. This encourages employees to move their cars and allow another employee to charge, improving the utilization of chargers.

Education and Engagement

In addition to providing a service to employees driving EVs, workplace charging creates an opportunity to improve employees' understanding of and interest in electric vehicles. As employee charging stations open across Metro facilities, Metro will conduct employee engagement activities to promote the new access to convenient, reliable workplace charging and to raise awareness about EVs and their benefits among non-EV driving employees. For example, in conjunction with charger openings, Metro could host ride-and-drive events with local dealerships, vehicle OEMs, and non-profit organizations to allow employees to experience driving an EV and see the variety of model offerings available on the market.

Metro will also develop communication plans for employees at each site to broadcast information about new charger availability, tips for shared use among employees, the pricing structure, and how to gain access to the employee charging network.

Key Recommendations for Employee Charging

- Develop employee charging at prioritized locations, pursuing utility incentives to deploy sites cost effectively.
- Conduct additional employee research to understand and inform long-term charging needs.
- Develop employee engagement plans for new charging sites to increase awareness of EV charging and benefits.

[20] *For simplicity and the purposes of the EV Parking Strategic Plan Cost and Revenue Modeling, Metro has assumed a charging price consistent with an estimated average cost of electricity.*

3. Transit Riders Charging

Transit Riders Charging will increase access to charging for Metro riders through chargers installed at Metro's P&R locations. Like employee charging, improving charging availability for transit riders can increase the likelihood that P&R users will consider an electric vehicle. P&R charging can double the effective range of an EV if drivers charge at home. It can also serve as a primary point of charging for riders without access to home charging who use P&R lots regularly for their transportation needs.

Overview of Transit Riders Charging

Installation of public charging at new P&R facilities is required by Title 24 CALGreen codes; Metro has gone beyond this requirement and committed to adding charging at existing P&R facilities. Based on the CALGreen codes, Metro will target the installation of charging stations at 5% of total P&R spaces by 2028, on track to electrifying 10% of spaces by 2030.

Metro currently operates nearly 50 P&R locations, several with multiple lots, totaling over 19,000 spaces in the P&R inventory. This inventory is dynamic and changes over time as needs shift or as parking properties are developed for other uses. While Metro owns most P&R locations, some properties are owned by Caltrans and operated under joint-use agreements. Metro's Capital Planning includes the addition of 14 P&R locations at planned future stations over the next decade. These would add over 8,600 additional parking spaces and will be subject to the CALGreen EV charging requirements at the time of their development. The EV Parking Strategy divides P&R charging plans between existing sites ("retrofit") and future capital projects ("new construction").

Charging Infrastructure Requirements and Approach

Metro's P&R charging approach is driven largely by Title 24 CALGreen requirements for EV charging at public parking facilities. The CALGreen codes have been updated based on a triennial cycle since 2009, with the most recent 2019 codes enforced as of July 1, 2021. The state has proposed 2022-cycle codes that, if adopted, would be effective January 1, 2023. Current codes require only a certain percentage of total parking spaces to be "EV capable" – meaning spaces are identified for EV charging and make-ready infrastructure is in place so that a Level 2 charger could be more easily installed in the future. LA County's codes also require a percentage of those spaces to have an EV charger installed, an approach adopted by the proposed 2022 State codes.

Table 3. Comparison of 2 CALGreen EV charging requirements for EV capable parking spaces

Code Tier	CALGreen 2019 (Currently in effect)	CALGreen 2022 (Draft)
Mandatory	10% of total spaces	20%
Tier 1	15%	30%
Tier 2	20%	45%

Per the MBS Plan, Metro has elected to design and build 100% of its capital projects in compliance with the 2019 CALGreen Tier 2 requirements, which include developing sites with 20% of parking spaces identified and made ready for EV charger installation. Based on the 2020

City of Los Angeles' Green Building Code, Metro will also install Level 2 EV charging stations at 10% of parking spaces. While this requirement only applies to new construction, Metro will use the 10% figure as a goal across the P&R system through 2030, and as an informal target for each location where charging is added.

Metro will consider how proposed 2022 code-cycle updates impact current plans and align with expected needs. The proposed Tier 2 EV requirements would more than double the number of EV-capable spaces required under the current 2019 codes, and additionally require that 15% of spaces (one-third of EV-capable spaces) have charging stations installed. These requirements would add significant costs beyond initial EV Parking Strategy plans for capital projects and may ultimately provide more charging capacity than is needed based on P&R driving patterns.

While Metro considered slower, low-power Level 1 charging in the development of the Plan, adding greater numbers of Level 1 charging was determined to be less cost-effective than installing Level 2 chargers, which also can dynamically change power demand based on driver and/or grid needs. Charger installation costs are typically driven by factors including trenching, conduit, and cable distances. Installing more Level 1 chargers would increase these distances, adding to project construction costs. Metro may further evaluate the need for additional types of charging at employee and P&R locations throughout this plan and may install additional Level 1 charging to complement planned Level 2 chargers in future phases. For more information, see Appendix B. Charging equipment procured by Metro will continue to be OCPP compliant to allow for future flexibility around charging services and providers.

Additionally, Metro has developed a set of prioritization criteria to identify existing P&R sites for EV charging installation during the Plan period, described in Appendix B. These criteria were selected to maximize the impact and amount of charging that could be deployed, including prioritizing sites that will align with utility incentive program design. Metro also incorporated qualitative data in its prioritization based on feedback from internal partners, including Parking Operations, which identified locations that would be potential best fits for the addition of EV charging.

Table 4. Considerations for prioritizing P&R sites for the development of EV charging

Criteria	Priorities
Community Impact	> Identified locations most negatively impacted by pollution caused by transportation, including economic, environmental, and health concerns > Metro-prioritized locations in disadvantaged communities (DACs) > Sites located in DACs often receive increased incentives and help meet utility program targets
Structure Type	> Garages, due to lower installation costs than surface lots, less required trenching, ability to use wall-mounted equipment, and the likelihood of meeting utility program cost thresholds

Total Number of Parking Spaces	> Sites with more spaces to accommodate chargers, increasing site cost-effectiveness and increasing locational flexibility to identify 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
Traffic Analysis Zones (TAZ)	> Use of Metro's residential and commercial Traffic Analysis Zones scores for each station based on likely residential EV ownership and routes used to commute to/from work
Available Real Estate	> Allows for the option to install solar parking canopies and battery storage in the future to help offset the additional energy required to power EV charging > Onsite generation and storage to provide backup power for charging
Utility Incentives	> Sites with the highest available incentives to offset capital costs, understanding that utility incentive value and availability may be variable over time

Site Prioritization and Charger Needs

Based on these above assumptions and criteria, as well as qualitative assessments, Metro has developed a prioritized list of P&R sites for the development of EV charging. To identify charging ports per site, Metro targeted 10% of parking spaces to align with plans for new construction sites, and the 2020 City of Los Angeles' Green Building Code. Metro's Parking Management organization reviewed the proposed charging space targets and provided suggested modifications based on on-site utilization constraints and another local site context. Metro will submit these sites for utility incentive programs as they become available based on the prioritization below in Table 5. The estimated charging station counts are preliminary and may be revised based on parking utilization or other local factors.

Table 5. Prioritized P&R sites and estimated charging needs

Prioritization		P&R Location			Parking and Chargers		
Priority	**Fiscal Year**	**Metro Property**	**DAC**	**Utility**	**Lot Type**	**Parking Spaces**	**Charging Stations**
1	2023	Willow St.	**DAC**	SCE	**Garage**	689	65
2		Norwalk	**DAC**	SCE	Lot	300	10
3		Irwindale	**DAC**	SCE	**Garage**	350	35
4		Lakewood Blvd	**DAC**	SCE	Lot	531	40
5		Chatsworth	**No**	LADWP	Lot	609	58
6		Universal City/ Studio City	DAC	LADWP	Lot	782	74
7	2024	Arcadia	No	SCE	**Garage**	270	25
8		Atlantic	**DAC**	SCE	**Garage**	268	20
9		Monrovia	**DAC**	SCE	**Garage**	350	35
10		Long Beach	**DAC**	SCE	Lot	635	65
11		Expo/ Sepulveda	No	LADWP	**Garage**	260	20
12		La Cienega/ Jefferson	**No**	LADWP	**Garage**	494	45
13		Expo/Crenshaw	**No**	LADWP	**Garage**	450	45
14		Expo/Bundy	**No**	LADWP	Lot	217	22
15		Sherman Way	**DAC**	LADWP	Lot	207	20

Some P&R locations are operated under a Joint Use Agreement with Caltrans and require special considerations for charging development. Metro has conducted initial conversations with Caltrans staff, enabling the agencies to work together to meet shared objectives for charger installation at these facilities. Caltrans staff have noted several policies that must be factored into site development, particularly when applying for utility incentive programs. At this time, these policies include stipulations that do not allow profit from EV charging services on Caltrans-owned sites, and the inability to grant utility easements for EV charging infrastructure. Caltrans is reviewing their policies and considering changes to allow for the integration of EV charging at Metro-leased locations. These sites will require additional review by Caltrans and approval through Caltrans' Airspace procedure during site planning. The Norwalk, Lakewood, and Long Beach lots prioritized above may serve as pilot opportunities to work through the joint planning and approval process.

Additionally, Metro's Capital Projects plan includes three new P&R facilities that would be developed within the EV Parking Strategy period – the Foothill Gold Line extension in 2025 will open new stations in Glendora, La Verne, and Pomona with parking structures. Table 6 below identifies the number of EV-ready spaces per CALGreen Tier 2 requirements and the target number of charging stations installed at each site. The EV-ready space construction costs are

expected to be covered by capital project budgets, while the charger installations and operations would be funded through the EV Parking Strategy.

Table 6. New P&R Stations with EV-Ready spaces and targeted EV charger installation

New P&R Station	Parking Spaces	20% EV-Ready	10% EV Chargers	Opening Year
Glendora	420	84	42	2025
La Verne	600	120	60	2025
Pomona	980	196	98	2025

As part of these new construction projects, Metro will develop standardized technology and construction specifications for capital project EV charging installations. These specifications will help clarify requirements for vendors or others designing and constructing sites with EV charging. Standard criteria will include specifications of Metro's selected charging equipment, elements for electrical components to meet the National Electric Code (e.g., transformer and panel sizing, conduit, and wire specifications), Americans with Disabilities Act (ADA) accessibility requirements for EV charging, guidance for siting of charging to minimize costs and improve driver experience, required signage, lighting, and other safety measures.

Implementation Considerations for Transit Rider Charging

As the network of charging at P&R locations is deployed, Metro and partners will need to monitor and maintain a network of hundreds of charging stations across dozens of locations, including the enforcement of parking rules and revenues from rider charging.

Internal Coordination

Given limited EV charging spaces and increasing demand as more EVs are sold each year in California, Metro will need to maintain parking enforcement for EV charging spaces. Metro's parking ordinance 8-05-340 establishes policies for EV charging station spaces, which prohibits non-electric vehicles from parking in marked EV spaces and requires EVs to be plugged in and or charging while parked in a marked space. Metro's fee schedule, Section 20, also establishes a $53 fine for violations of the EV parking code. Metro's Parking Management organization should continue to enforce these regulations to keep EV parking spaces available to drivers that rely on them. Per state regulations, Metro will mark and maintain signage for public (and employee) EV charging so that EV owners can easily locate the stations and so that non-EV owners do not park in spaces illegally.

Figure 4. Standard EV parking signage

Charging Maintenance and Access

Through our contracting for EV hardware and services, Metro will ensure reliability standards for charger uptime (the percentage of time that the charger is functioning and available for driver

use). This will include monitoring the network for issues, prompt response for hardware or software issues, and regular preventative maintenance. Metro's charging provider(s) will also manage customer service for users to aid with any access, payment, or other troubleshooting.

Metro will also work with charging network providers to enable TAP card integration to seamlessly pay for charging sessions, in addition to complying with any state regulation for payment access.

Charger Pricing Structure

At Metro's existing P&R charging stations, the agency has historically charged users $1 per hour of usage, capped at $3 per day, plus a $0.25 transaction fee per charge. Metro will establish a uniform pricing structure for transit rider use, consistent with new California state regulations which require EV charging to be based on $/kWh pricing and clearly show any additional charges or fees.[21] 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.[22] Metro will aim to establish fair market pricing for use of its chargers and has no intention of overcharging public users. Pricing will be communicated to drivers both via Metro's website and via signage on-site. Pricing may need to be adjusted regularly based on utility rate schedules or changes in usage patterns by transit riders. Moving forward, Metro will work in concert with the Board to approve new pricing rates as they are updated in the future.

The pricing structure will also consider more dynamic pricing options to improve the efficient use of chargers. Strategies may include using time-of-use prices to align with utility rate costs or idle fees, which add an additional charge (e.g., $/hour) for the time vehicles remain in a charging space after their vehicle has completed charging and a reasonable grace period has passed. This encourages users to move their cars and allow another user to charge, improving the utilization of chargers. Given that P&R locations are long-dwell, and where drivers are not near their car to move it once finished charging, Metro will not plan to include idle fees for drivers who do not move their vehicle after the car is finished charging. However, Metro may consider fees for drivers parked longer than extended periods (e.g., 12-16 hours) to ensure spot turnover daily and increase access for more drivers.

Interoperability of Charging Networks

As EV charging infrastructure has developed across the US over the last decade, a key frustration of many early drivers was the lack of "roaming" or interoperability between various charging network providers. Drivers would need to maintain accounts and memberships with any charging network or service provider that they used to be able to access and pay for charging at various stations. In recent years, major charging networks have begun to establish bilateral or multi-party agreements to allow for more seamless roaming between their networks and improve the experience for drivers charging in public. In the development of the EVPSP network, Metro staff will work with our charging partner to ensure the Metro network is also engaged with these national and regional charging networks to join in roaming agreements and enable

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[21] Electric Vehicle Fueling Systems Specifications in the CCR Title 4, §§ 4001 and 4002.11 Final Regulation (https://www.cdfa.ca.gov/dms/pdfs/regulations/EVSE-OAL_EndorsedLetter-and-FinalText.pdf) and Statement of Reasons (https://www.cdfa.ca.gov/dms/pdfs/regulations/EVSE-FSOR.pdf)

[22] For simplicity and the purposes of the EV Parking Strategic Plan Cost and Revenue Modeling, Metro has assumed a charging price consistent with an estimated average cost of electric.

this type of interoperability to allow for a more seamless and simple charging experience for transit riders.

Costs

While EV-capable charging spaces are required for new construction per the CALGreen codes, Metro will experience significant savings by installing charging infrastructure in new construction as opposed to retrofitting sites after they are built. An analysis from the California Electric Transportation Coalition found that an office with 150 parking spaces installing charging infrastructure for 10% (15) EV ready spaces would pay less than a quarter of the cost per EV space of a standalone site retrofit. As shown in Table 7 below, significant cost savings are achieved through raceway installation, reduced trenching needs, and fixed costs like permitting, inspection, and construction management.[23]

Table 7. EV charging installation costs in retrofits vs. new construction

Cost Component	Stand Alone Retrofit	New Construction
Electrical Panel	$8,477	$6,486
Raceway	$7,269	$4,107
Electrical Components	$1,151	$959
Trenching	$1,657	$413
Demolition	$22,966	
Asphalt & Concrete	$9,223	
Permitting, Inspection, etc.	$8,792	$1,560
Construction Management	$2,781	$90
Total per Site	**$62,316**	**$13,615**
Number of EV Spaces	15	15
Cost per EV Charging Space	**$4,155**	**$907**

Education and Engagement

The addition of new public charging will significantly benefit EV drivers in the region and will help those interested, choose to go electric – but only if drivers are aware of the charging availability at their preferred P&R locations. Metro will plan to conduct outreach to P&R customers and riders to raise awareness of charging location openings and build education about their use, prices, and the general benefits of going electric. Metro will also develop communications plans for customers who are concerned about the loss of general parking spaces to those dedicated for EV drivers only. Metro will also work with charging network operators to ensure that P&R stations are accurately displayed on public charging locator maps, such as PlugShare.com and the Department of Energy's Alternative Fuels Data Center.

[23] *California Electric Transportation Coalition, Plug-in Electric Vehicle Infrastructure Cost Analysis Report for CALGreen Nonresidential Update. September 16, 2019. https://caletc.aodesignsolutions.com/assets/files/CALGreen-2019-Supplement-Cost-Analysis-Final-1.pdf*

Key Recommendations for Transit Rider Charging

- Pursue charging at prioritized P&R sites through utility incentive program applications.
- Complete solicitation for charging hardware, software, and maintenance services.
- Develop specifications for Capital Projects parking designs to ensure consistent, cost-effective EV deployment at future P&R lots; Monitor future CALGreen code changes for impacts on P&R site plans.

4. Charging for Public Use

As a multi-modal, regional transportation agency, Metro's support for the adoption of electric vehicles expands outside of our employees and transit riders. Through the implementation of the EV Parking Strategy, Metro will also seek opportunities to develop public charging more broadly, which will support our vision and goals – and the broader regional and state objectives to decarbonize the transportation system.

Specifically, in addition to the public charging for transit riders at P&R locations, Metro will seek opportunities to develop fast-charging services for public use where feasible. Before developing projects, staff will first explore market needs, analyze geographic gaps in public charging aligned with Metro's system and properties and evaluate operating models that may align with Metro's strengths and regional roles. Appendix C presents details regarding two preliminary opportunities related to joint development sites and Metro Micro vehicles.

Metro may also evaluate opportunities for partnerships with EV car sharing providers, such as the City of Los Angeles' BlueLA program, or other private shared mobility providers to identify options for how Metro's various charging options can support greater access to EV mobility for all Angelenos.

5. Program Cost Estimates and Potential Revenue Sources

Metro has identified several potential funding sources and mechanisms for capital budgets to develop charging locations and operations budgets to support their ongoing maintenance. EV charging also provides revenue sources from employees' and transit riders' charging, in addition to Low Carbon Fuel Standard (LCFS) credits generated by EV charging, which can be sold for additional program revenue. As previously noted, costs and revenues, and other savings may accrue to different organizations' budgets within Metro, and staff will work to identify these interdependencies and impacts of the EV Parking Strategy on future budgeting. Finally, there are current utility incentives and potential future grant opportunities that can help offset both capital and operational costs, which Metro will pursue to reduce budget needs associated with the EV Parking Strategy. Cost estimates are broken into three sections below: 1) The near-term needs to maintain and operate the existing charging network until a long-term contract for the EVPSP is executed, 2) The capital costs to install 246 chargers planned in FY23 through the Charge Ready program from Southern California Edison, and 3) the long-term capital and operating costs to deploy and manage the full network envisioned in the EVPSP.

Current and Near-Term Operations Costs

As described further in Section 6 below, Metro's current Operations and Maintenance contract for the existing 108 level 2 chargers is due to expire in August 2022. Metro plans to extend this agreement for up to 24 months until a long-term contract is executed for the deployment and operations of the network envisioned in the EVPSP. To meet this near-term need for O&M of the network, Metro will need to allocate $250,000 for the extension of the current contract.

Table 8. Near-Term Operations Budget Requirements

Near-Term Operations Budget	Cost/Month	24-Month Extension Cost
> Monthly Network Operations	$7,000	$168,000
> Field Maintenance & Repairs	$3,417	$82,000
Near-Term Operations Total		**$250,000**

Anticipated Charge-Ready Installation Costs

Metro has begun coordinating with Southern California Edison on the utility's Charge Ready program, which will offset significant costs of EV charging installations for public and workplace sites (see more information in the Utility Incentive Programs section below and in Section 6: Current Activities). Staff have submitted numerous applications to SCE for both employee and Park and Ride facilities, with seven sites in conceptual design phases with SCE and expected to be installed during FY23. These sites total 246 new charging ports for employee or transit rider use. While SCE funds the make-ready infrastructure for each site, Metro will be responsible for the procurement of charging station equipment and installation of that equipment at the make-ready site. Metro will use FY23 capital for the deployment of these 246 chargers. The anticipated costs for these chargers are outlined below:

Table 9. Charge Ready FY23 Installation Budget

FY23 Charge Ready Installation Budget	Unit Cost	Units[24]	Total Cost
> Charging Equipment (per port)	$2,771	246	$681,666
> Installation, Commissioning, and Project Management (per port)	$188	246	$46,248
Charge Ready Installation Total			**$727,914**

The operations costs for these chargers are included within the Table 8 near-term budget requirements.

EVPSP Costs

Charging infrastructure deployment costs are highly site-specific and difficult to estimate without developing initial site plans. The below EV Parking Strategy high-level capital cost estimates are based on industry research and average charging installation costs. Similarly, Metro estimated operational costs based on historical values or industry averages, including estimating energy costs and typical vehicle usage. Metro estimated electricity costs and potential revenue from charger-generated LCFS credits. A summary of the five-year cost estimation is shown in Table 10.

Table 10. Estimated Five-year EV Parking Strategy Capital and Operating Costs

Estimated Cost / Revenue Source Capital Estimate	$ (M)	Estimated Charging Units
> Employee	$4.0	125
> P&R	$44.1	1725
EVPSP Capital Total	**$48.1**	
Potential Utility Incentives	-$13.4	
Operations Estimate	**$ (M)**	**Estimated Charging Units**
> Employee	$2.1	125
> P&R	$14.8	1725
> Program Management	$1.5	
EVPSP Operations Total	**$18.4**	
Potential LCFS Revenues	-$4.8	
Potential Charging Revenues	-$6.9	

[24] *Note: Some chargers installed at Metro Divisions and Locations through the Charge Ready program will be designated for non-revenue fleet use to support electrification of those vehicles.*

These costs and revenues include assumptions based on deployment timing, vehicle procurement, electricity rates, incentives, and market prices, which may have high variability over the Plan period and should be used as initial estimates at this time. For additional information on revenues from charger usage, see Chapter 3 section on Implementation Considerations for Transit Rider Charging.

Notably, costs and revenues will be budgeted from multiple different organizations within Metro, and the Agency will need to track how the costs and benefits accrue to different groups and their budgets. For example, construction costs for Capital Planning on new P&R may increase from CALGreen charging installation requirements, but those sites may also generate LCFS credits from the use of charging that could offset future costs. Metro plans to map these interdependencies to identify expected budget impacts and accurate capital and operational needs.

Available Funding Sources for EV Charging

The EVPSP will be implemented during a period of unprecedented funding sources for EV deployment that will support and accelerate the growth of charging in Los Angeles and around the country. Between current utility incentive programs, state and federal grants, and revenues from Low Carbon Fuel Standard revenues (see the section below), there are billions of dollars available and set to be allocated in coming years that will support Metro and its partners in realizing the bold goals of the EVPSP.

Utility Incentive Programs

Metro recognizes the significant impacts of the COVID-19 pandemic on capital and operational budgets. As a result, third-party sources of funding will be critical to deploying infrastructure for the EV Parking Strategy in the near term, and Metro has therefore crafted the EV Parking Strategy to prioritize funding availability from utility programs and other potential future incentive sources. 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. Key elements of these programs are defined below in Table 11.

Table 11. Utility funding for EV infrastructure installations

	SCE Charge Ready	LADWP EV Charging Station Rebate Program
Total Funding	$437 million	$12 million (per annual funding allocation)
Program Design	Utility-designed, -constructed, and -owned make-ready infrastructure, plus rebates for the purchase of customer-owned chargers	Rebate for the purchase and installation of charging station(s)
Incentive Amount	> Covers full make-ready cost (Approx. $12,000/port) > EVSE rebate: $725/port or $2,900 for DACs	> $4,000 for first charging station; $5,000 for DAC (+500 for dual port) > One additional rebate per every four parking spaces electrified

	SCE Charge Ready	LADWP EV Charging Station Rebate Program
Minimum and Maximum Ports	> Minimum: Four per site > No maximum	> Minimum: One per site (two spaces) > Maximum: 40 rebates/site (138 spaces)
Requirements	> Requires SCE crew and contractors to perform make-ready construction; C-10 licensed electrician must install the charger > Separate metering for EV installation > TOU rate and demand response program enrollment > Charging equipment operational for 10 years > Chargers and software must be from SCE approved product list	> Licensed electrical contractor performs installation > Level 2 charger listed by the nationally recognized testing lab (NRTL) > Charging equipment operational for two years > Requires final Los Angeles Department of Building and Safety permit inspection
Additional Detail	> Site plan subject to SCE costs > Easement required for utility-owned infrastructure > Sites with prohibitive cost per port may be put on hold > Option for Metro to build make-ready infrastructure and receive an incentive for 80% of estimated costs	> May apply for rebate reservation; can complete charging installation within 12 months of reservation approval > Program allows for retroactive applications, meaning charger reservations typically fill up with completed or pre-designed projects within hours or days of funding availability.
Timing	> Launched July 2021; expected 5-year program or until funding is reserved	> Next Funding cycle opens in late June 2022.[25]

There are advantages to each program's design and funding levels. SCE's program incentives are greater, with no maximum per site, and long-term funding certainty (an estimated 30,000-40,000 chargers to be deployed over the five-year program). SCE's program also covers the design, permitting, contracting, and construction process of the make-ready installation, requiring fewer resources from Metro. However, some sites may be rejected or held due to cost constraints, and SCE will propose site plans based on make-ready costs, leaving less flexibility for

[25] *Because LADWP's program allows for retroactive project funding between rounds of program allocations, Metro needs to have completed or "shovel-ready" projects that can be completed within the 1-year timeline for funding reservation. Metro will continue to seek program funding with future LADWP funding cycles as available.*

Metro. SCE also offers a rebate model that provides up to 80% of the make-ready project costs for customer-built infrastructure (instead of utility-built infrastructure). This option could be preferable for sites that are rejected by SCE's make-ready program, but this option would require Metro to oversee and execute all aspects of projects, instead of SCE. LADWP's rebate model provides more flexibility to Metro with regards to siting chargers at any location but offers significantly lower incentives: after the first two parking spaces, rebates are only paid for each four parking spaces, reducing the value per port significantly. LADWP's program funding is also not guaranteed long-term, and as funding allows for retroactive applications, it may be hard to predict funding availability.

A slight majority (54%) of charging stations planned in the EV Parking Strategy are at facilities served by LADWP. The EV Parking Strategy assumes these utility incentive programs are available to a majority (~2/3) of sites, while the other sites may be ineligible, rejected, or funding may not be available at the time of site development. Smaller public utilities also offer rebate programs, including Pasadena Water and Power and Burbank Water and Power. Both utilities operate similar incentive programs for medium- and heavy-duty vehicle charging infrastructure which is currently open for applications; each requires proof of purchase of vehicles to qualify for incentives.

State, Federal, and Local Grant/Capital Funding

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. Examples of potential funding sources are summarized in the table below.

The Infrastructure Investment and Jobs Act (IIJA), 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.[26] As of February 2022, the 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.[27] The Infrastructure Investment and Jobs Act also provides $384 million to California in formula funds for EV charging along designated alternative fueling corridors.

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[26] *Atlas Public Policy. EV Hub, Infrastructure Investment and Jobs Act (H.R. 3684), November 17, 2021. https://www.atlasevhub.com/materials/invest-in-america-act-h-r-3684/*

[27] *The VW Mitigation Trust funding is not applicable for site also funded by SB 350 (i.e., SCE Charge Ready Program) but could be combined with LADWP program funding.*

Table 12. Grants and Other Funding Sources

Program	Funding Agency	Size	Details
Alternative Fuel Corridor grant program (IIJA)	U.S. Dept. of Transportation	$2.5B (5 years)	> Details under development, grant implementation expected in late 2022 > For deployment along with designated Alt. Fuel Corridors, and possibly in other publicly accessible locations > Intended to facilitate long-distance travel, priority for rural or low- and moderate-income neighborhoods, and multifamily communities with low access to parking
National EV Formula program (IIJA)	State of CA	$384M (CA)	> $5B national program, with funding to be made available to states on a highway formula funding basis
Surface Transportation Block Grants	U.S. Dept. of Transportation	$72B	> Funded through IIJA, funds states and local governments to use the funding to best address local needs > Newly allows installation of EV Charging as eligible project types
CALeVIP and Light-Duty EV Charging Infrastructure	California Energy Commission	$270M (2021-2022)	> From 2018-2021, Southern California funding reserved for DC Fast Chargers > Up to $80,000 per DCFC, 80% of project costs > Existing funding exhausted in 2021

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, in recent years they have ranged between $150 and $200 per credit. Current credit futures point to a price range declining from $150 to $120 between 2022 and 2027.[28]

The value of a kWh of energy used depends on the type of vehicle charging, but for light-duty vehicles, at futures values, Metro estimates a value of $0.11 - $0.13 per kWh – or slightly less

[28] *Based on Values provided to Metro by SRECTrade, Inc. in November 2021.*

than the cost of electricity to charge that vehicle. Over hundreds of thousands of miles, the revenue from these credit sales is expected to reach millions of dollars for Metro and should be funneled back into the EV Parking Strategy to ensure long-term investments in clean transportation. Metro should also ensure in any contracting with EV vendors that the agency retains control over the LCFS credits generated from Metro-owned charging stations.

Public-Private Partnerships

Metro will explore potential public-private partnerships that could reduce the upfront or long-term investments required for the EV Parking Strategy. These partnerships 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. This will include several steps such as creating a scope of work and industry outreach, soliciting proposals and developing a pre-delivery agreement, onboarding a partner, and transitioning the existing charging network in conjunction with future charger deployments. While a P3 agreement may help accelerate the deployment of chargers as outlined in the EVPSP, it may also have risks. Private charging providers may not see a rapid enough return on investment for the types of locations Metro plans to deploy, limiting their interest in pursuing Metro's solicitation. Charging providers may also seek to only prioritize certain sites that due appear financially viable, leaving other sites under-developed. And finally, a P3 could turn over valuable long-term revenue streams that Metro would have otherwise retained ownership of, including LCFS credits or charging user revenues. Metro will evaluate these factors alongside the benefits of pursuing a P3 to determine the best delivery option for the EVPSP.

Key Recommendations for Program Costs and Revenues

- Identify potential budget sources for initial charging installations; utilize initial projects to further refine long-term program cost estimates and map budget interdependencies between internal groups.
- Pursue incentive and grant opportunities to offset costs as available.
- Develop employee and P&R charger usage pricing plan to match charging revenues with electricity and operational costs.
- For charging installations, claim LCFS credits: when credits are monetized, re-invest LCFS revenues back into EV Strategy for future deployments and operational costs.
- Pursue a P3 solicitation to accelerate the deployment of EVPSP and assess long-term benefits and drawbacks of such an agreement vs. other delivery methods.

6. Current Activities

To ensure a successful rollout of the EVPSP, Metro has begun preparing for the expansion of its existing network and identifying mechanisms for implementation to address upfront and long-term funding needs. These current and near-term activities are detailed below:

Extension of Current Installation, Operations, and Maintenance Contract

Metro currently contracts with Axxera to install, operate, and maintain the 108 chargers active across its network today. The existing contract with Axxera extends through August 2022, and without an extension of this agreement, Metro will face a gap in EV charging services for the 7,000 unique customers that utilize the charging network. Metro will require an additional $250,000 to continue operations of the charging network beyond August 2022 as a bridge toward the award of a potentially long-term contract that funds the build-out and operations of the network outlined in the EVPSP.

Plan Delivery Methods and Using a Public-Private Partnership (P3)

There are a variety of delivery methods that Metro could leverage to execute the EVPSP over the coming years, each of which provides varying levels of upfront costs, long-term resource commitment, and overall control of the Plan implementation and operations to Metro. Metro has experience with each of these delivery approaches particularly in major capital projects, renewable energy programs, and others. An overview of the potential delivery options is included below:

- **Option 1 – Separate Contracts / A La Carte (current network approach):** Under this delivery method, Metro retains most contract responsibilities, including design and engineering of sites, installation of charging infrastructure, operations, and maintenance of the network and equipment following any warranty period. Metro can elect to contract with one or multiple service providers on an as-needed basis and would retain overall oversight of the Plan implementation based on the terms of each contract. This is the approach Metro has taken for the initial deployment of 108 level 2 chargers comprising its existing network.
- **Option 2 – Charging-as-a-Service**: Metro would pay an all-inclusive per-kWh or per charger-month fee to a selected service provider that would incorporate the cost of financing and other infrastructure costs, as well as ongoing operations and maintenance. Metro transfers all operation of charging infrastructure responsibilities to the private sector, including any project financing. This is a relatively new approach offered by some EV charging service providers, though is a common approach in clean energy projects such as solar PV power purchase agreements (PPAs).
- **Option 3 – Pre-Development Agreement / P3:** A Pre-Development Agreement (PDA) is a progressive delivery approach that would allow Metro to contract with the private sector for the planning and development stages of the process. In doing so, Metro would be able to accelerate program design elements and negotiate risk transfer for certain scope elements (i.e., Build, Operations, Maintenance, and Finance) at a later stage of the process. PDAs are a form of collaborative contracting for the project (single division) or program delivery, where Metro would work collaboratively with private sector parties to mitigate project pre-development risks such as program and scope definition, key approvals, and competitive tension, and commercial or financial feasibility within available public resources. Complex projects derive the most benefit from such contracts (i.e., projects with potential issues like technical challenges, large size, those outside core agency competencies, lengthy or unclear

permitting). PDAs can be structured to initially require developers to deliver value at key project development milestones (e.g., technical studies or value engineering) followed by an open-book pricing and risk mitigation process that leads to a commercial arrangement and associated risk allocation that mirrors most traditional P3s. Metro is currently engaged in a PDA approach for the Sepulveda Pass Transit Corridor where Metro received proposals for different technology solutions for the project and is working with private partners to develop the final project delivery solution.

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. As shown in the tables above, 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. Through outside funding sources, Metro can accelerate EV charging deployment beyond what would be otherwise available and help align our existing facilities charging with current CALGreen codes for new construction. These external funding sources will also help prepare Metro to meet expected requirements for the transition of non-revenue fleet vehicles to EVs.

Metro plans to pursue the P3 option that will reduce the upfront or long-term 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 will finance, fund, and implement the Strategic Plan, including the installation 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 would fund the capital and operating costs of the P3. Staff will continue to seek additional financing opportunities to fully fund the installation and operation costs for all of the EV charger commitments in the strategy.

If feasible, and 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 through the existing network solution provider to allow for a seamless experience for the 7,000 unique users that rely on Metro's current charging network.

As a next step, Staff will develop the scope of the P3 with an anticipated solicitation in January 2023. This would allow Metro to contract with and onboard a selected partner by July 2023. The anticipated milestones and timeline for the execution of a P3 contract are shown below:

Table 13. P3 Milestones and Timing

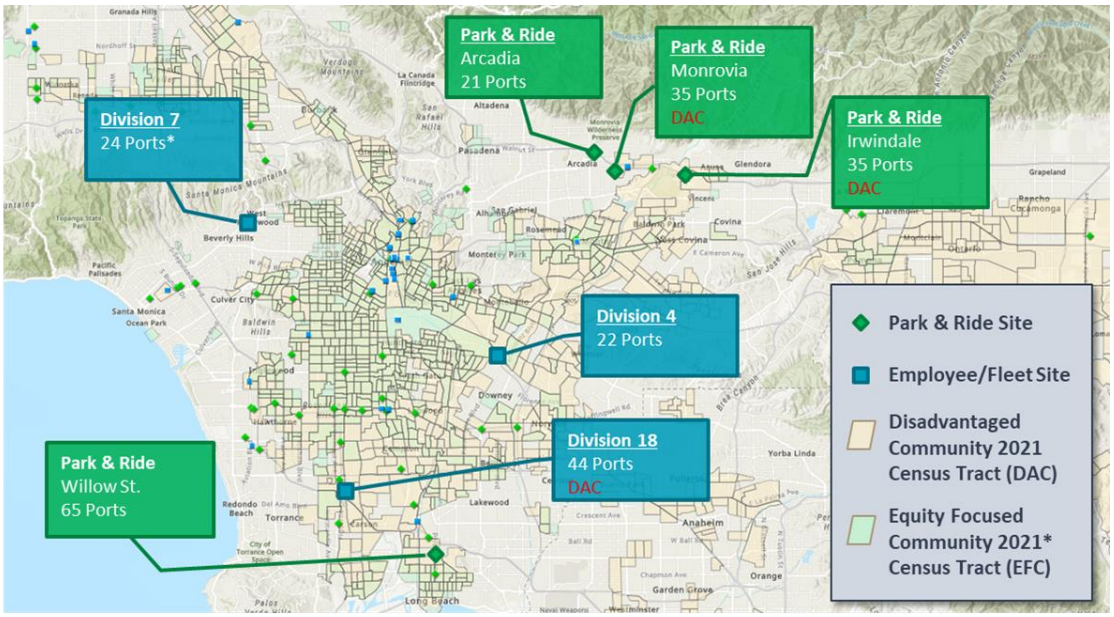
Milestone	Expected Timing
Development of P3 scope	July - December 2022
Industry outreach	September - December 2022
RFP solicitation and evaluation	January - April 2023
Contract negotiation	May - June 2023
P3 onboarding and charging network transfer	July - December 2023

Integration with SCE Charge Ready Program

Over the last year, Metro has been in regular coordination with SCE regarding the significant incentive funding available from the Charge Ready program and Metro's interest in participating. SCE has already provided preliminary review and feedback on several sites and identified potential candidates, as well as locations that do not meet cost-effectiveness thresholds.

Based on these conversations, Metro has identified an initial set of EVPSP locations that it plans to pursue installation in FY 2023 to ensure the Agency does not miss out on this opportunity to install charging infrastructure at significant cost savings from SCE's support. As such, Metro plans to install 246 chargers at employee and Park & Ride facilities identified in the EVPSP as soon as possible beginning in FY 2023, using existing budgeted funds. This includes four Park & Rides and three Divisions across the service area. Three locations are within disadvantaged communities. These preliminary sites are highlighted in the map below, along with markers for the full set of EVPSP locations.

Figure 5. Map of Preliminary SCE Charge Ready Locations



**EFC areas based on pre-updated (2021) values.*

The estimated ports per site shown in the Figure above may change based on SCE's review of site feasibility and costs.

Key Recommendations for Current Activities

- Develop and solicit potential P3 agreement to establish a long-term funding and financing mechanism for EVPSP deployment.
- Extend existing Metro EV network solution provider contract for up to 24 months while P3 is in development to allow for seamless experience for current users.
- Continue pursuing initial Charge Ready locations through current budget to achieve quick wins in expanding Metro's EV charging network.

7. Long-Term Planning and Actions

As Metro drives into the future, the following items should be considered in long-term planning for the EVPSP:

- **Workforce Development:** Metro will work together as an agency to develop training and education for its employees and partners to integrate and understand new technologies related to EVs and EV charging. The scale of the EVPSP and the charging network Metro plans to deploy will create opportunities to train the next generation of EV industry experts, including Metro's employees. These activities will help our current and potential workforce learn about these critical technologies and how they benefit our system, as we have historically done with previous projects and pilots, such as Solar PV installations and others.
- **Energy Reliability**: The growth of the EV market will have implications on the electricity grid. EV chargers will require additional grid capacity to generate and deliver additional energy, especially during peak demand times. Pairing EV charging stations with photovoltaics (PV) and energy storage offers a potential solution for deploying EV charging stations in areas where the grid is constrained to offset costly infrastructure upgrades and can add a measure of resiliency in the event of power disruptions. Additionally, these distributed energy solutions can be used to offset peak demand charges for the EV charging load. Co-deployment of PV and battery storage with EV charging infrastructure should be considered in site evaluations, especially as costs of storage systems decrease over time.
- **Vehicle Grid Integration:** The Joint Agencies of California, including the California Public Utilities Commission, California Energy Commission, CARB, and California Independent System Operator (CAISO), jointly created a working group to develop policies that support vehicle-grid integration (VGI). The VGI Working Group developed a set of 92 individual recommendations for policy actions that California state agencies, utilities, community choice aggregators, and CAISO could undertake to advance VGI in the short-term (2020-2022), medium-term (2023-2025), and long-term (2026-2030). Emerging VGI technologies allow for dynamic charging management and potential future bidirectional power flows from EVs back to the facility or distribution system, so EVs can become a grid asset. Vehicle batteries can use energy during downtime, charging when clean energy is abundant on the grid and returning energy to the grid in the afternoon and evening as solar production fades away. Metro will monitor market development for these technologies to identify when and how EV charging stations can best take advantage of these developments.
- **2028 Olympics:** The 2028 Summer Olympic Games will be hosted in Los Angeles and may create an opportunity for Metro to showcase their support of California's and Los Angeles' ambitious EV goals. P&R locations near Olympic venues and events should be prioritized and Metro should explore collaboration with local, regional, and national partners to deploy EV chargers at these sites.

8. Measuring Success and Recommendations

Metro has compiled a list of preliminary metrics that can be considered to measure the success and health of the EV Parking Strategy's progress. A brief description of these metrics is listed below. Following these measures, the report concludes with recommended next steps to begin implementation of the Plan.

Table 14. Deployment, Operations, Customer, and Impact Metrics for Measuring EV Parking Strategy Success

Measure Category	Name	Details
Deployment	The site and port deployment progress	> Number of employee and P&R sites and ports completed > % of employee sites with charging access > Geographic dispersion of P&R sites
	DAC deployment	> % of ports in DACs by EV Parking Strategy segment
	Average cost per port installed	> Average costs by EV Parking Strategy segment > Analysis of cost drivers
	Leveraged funding	> Utility incentives > Grant funding > Private funding
Operations	Charging station usage	> kWh consumed > Number of charging sessions > Number of individual users > Charger utilization rate > Charger idle time while occupied > Level of access for EV drivers
	eVMT	> Electric miles enabled by EV Parking Strategy segment
	Charging station reliability	> Uptime > Time to repair
	Charging costs and revenues	> Average rate costs by utility > Revenues from employees, P&R users
	Charging load shapes	> Hourly charging load and demand by EV Parking Strategy segment > Alignment with utility renewable generation and time-of-use rates
	Maintenance costs	> Average maintenance and repair costs per port

	Parking enforcement	> Incidence of EV parking enforcement citations
Customer Satisfaction	Customer feedback on accessibility, payment, and functionality	> User satisfaction survey > Focus group feedback > Non-user research
Impacts and Environmental Commodities	Carbon reduction	> GHG emissions avoided through electric miles enabled by EV Parking Strategy charging
	LCFS credit revenue	> LCFS credits generated and sales revenue
	Employee EV adoption	> Rate of EV adoption and commuting by employees

Summary of Recommendations and Next Steps

Table 15 below, categorizes the proposed next steps to begin executing the EV Parking Strategy. These are grouped between near-term activities and long-term research and planning actions.

Table 15. Categorized near- and long-term actions for the EV Parking Strategy

Charging Deployment	
Near-term	> Identify preferred charging hardware, and network solutions, and engage in contracting > Submit utility program applications for prioritized Employee and P&R sites > Initiate site review and design for LADWP-served sites
Long-term	> Pursue all grants, rebates, incentives, and other funding sources as soon and as aggressively as possible > Include long-term electric capacity needs in site development plans > Adopt standardized specifications for new capital project parking designs
Operations	
Near-term	> Establish program management and maintenance team/partner network to manage service at all charging station locations > Establish service level agreement targets for uptime and customer service > Draft policy and procedures for public/employee charging stations, including dwell penalty, charging/energy management, surveillance, and enforcement
Long-term	> Provide educational and promotional materials for all customers, specifically currently income challenged areas, to increase EV adoption and help all customers understand LA Metro EV policies and procedures
Planning	

Near-term	> Field employee survey to understand long-term needs for charging > Conduct community outreach to targeted segments identified by the EV Parking Strategy's priorities to understand long-term charging needs beyond 2028
Long-term	> Work with local, regional, and national partners to help further expand charging network capabilities (e.g., Olympics, LA County, TNCs) > Develop a fast-charging strategy based on market needs, analyzing geographic gaps in public charging aligned with Metro's system and properties and operating models that may align with Metro's strengths and regional roles > Further research on opportunities for public charging through TNCs like Metro Micro and at Joint Development sites
Funding	
Near-term	> Allocate LCFS credits generated through EV chargers to fund future program costs > Look at options to provide internal funding for projects and/or identify new procurement processes and partnerships to leverage more private funding
Long-term	> Map out the budget interdependencies of implementation and identify internal funding sources as needed

Launching this EV Parking Strategy represents an important step in preparing Metro for the future of mobility in Southern California. Increasing access to EV charging for employees, transit riders, and the public will allow Metro to meet the growing interest in EVs from drivers across the region and prepare the agency for a mass-market transition from gasoline and diesel vehicles over the coming decade. Together, these elements of the EV Parking Strategy will help us meet our organizational commitments to improved sustainability and environmental stewardship towards achieving our overall climate change goals, short and long-term.

Definitions

Battery Electric Vehicle (BEV): A type of electric vehicle that uses only electricity for propulsion, stored in an onboard battery.

Charge Ready Program: A utility-funded incentive program from Southern California Edison that helps supports the deployment of public and workplace electric vehicle charging stations by reducing upfront costs of installing charging stations through rebates and utility-owned make-ready infrastructure.

Disadvantaged Communities (DACs): The top quartile (worst scoring) census tracts, as ranked by the California Environmental Protection Agency's (CalEPA) "CalEnviroScreen," a mapping tool that helps identify California communities that are most affected by many sources of pollution and where people are often especially vulnerable to pollution's effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. High-scoring communities are the most highly burdened by pollution and other socioeconomic factors. Utility incentive programs for EV charging provide greater monetary support for locations based in DACs.

Direct Current Fast Charger (DCFC): A high-power type of EV charger requiring three-phase power at 480 volts. DCFCs are typically capable of recharging an EV's battery to 80% state-of-charge in under one hour and are typically publicly accessible and used for long-distance travel or as a charging option for those that lack access to regular home or workplace charging.

Electric Vehicle: Also called plug-in electric vehicle (or PEV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, is primarily powered by an electric motor that draws current from a rechargeable storage battery, which is recharged from an external power supply, such as the electric grid. Plug-in hybrid electric vehicles (PHEV) and Battery electric vehicles (BEVs) are the two classes of electric vehicles. For this document, Fuel Cell vehicles are not considered electric vehicles.

Equity-Focused Communities: A geographic designation and mapping tool developed by Metro to identify census tracts where at least 40% of households are low-income and either 80% of households are non-white or 10% of households do not have a personal car. These communities represent 30% of the County of Los Angeles' population. The EVPSP used the Equity Focused Community designations available as of 2021.

EV Ready: A designation used by California's CALGreen code to identify parking spaces in a new construction that must be designated for future installation of EV charging stations. This includes building adequate capacity in electrical panels and installing the raceway to allow building owners to more easily add EV charging circuits and install charging equipment at a later date.

EV Charger: Also referred to as EV Supply Equipment (EVSE), the EV charger is the off-board equipment installed at a parking space, used to recharge the battery of an electric vehicle. EV chargers often have one or two charging connectors or ports, which couple with the vehicle's charging port. EV chargers are typically designated as Level 1, Level 2, or DC fast chargers, indicating the power level and speed of charging, from slowest to fastest, respectively.

Internal Combustion Engine Vehicle (ICE): A vehicle powered solely by the internal combustion of gasoline or diesel. For this document, traditional hybrid vehicles, which do not recharge from an external power source, are considered ICE vehicles.

Make-Ready: The "make-ready" includes all of the equipment and construction required to install an EV charger up to, but not including the charger itself. This includes any upgrades to facility electrical equipment (transformers, panels), safety equipment, surface trenching, installation of conduits and cables, and concrete pads, up to the "stub-out" out where a charging station would be bolted on, connected, and installed. Utility EV programs, such as Southern California Edison's Charge Ready program, sometimes fund the construction of the "make-ready" infrastructure to reduce the upfront cost of charging installation for customers.

Level 1 (L1): A low-power level of EV charging, typically at 15-20 amps on the 120-volt circuit (also called slow charging or trickle charging), often via a standard electrical outlet. Drivers can use portable charging equipment provided with most electric vehicles to Level 1 charge. Level 1 charging generally provides three to five miles of range per hour of charging.

Level 2 (L2): A higher level of EV charging, typically at 30-40 (or up to 100) amps on a 240-volt circuit. L2 stations are typically fixed in place, and chargers provide 15-25 miles of range per hour of charging, for typical EVs.

Low Carbon Fuel Standard (LCFS): A regulatory carbon trading program, designed and operated by the California Air Resources Board. LCFS promotes the reduction of the carbon intensity of transportation fuels in California by requiring high-carbon fuel producers to purchase credits from low-carbon fuel producers to comply with the regulation. Electricity is a low-carbon fuel under the regulation, and commercial EV charging station owners can claim LCFS credits for electricity sold to fuel vehicles. As an EV charging station owner, Metro generates LCFS credits for the electricity used to fuel employees, fleet, and customer-owned electric vehicles. Metro can then sell these credits on the LCFS market as a revenue stream.

Plug-in hybrid Electric Vehicle (PHEV): A type of electric vehicle that combines both electric and internal combustion.

Transportation Electrification (TE): Transportation Electrification refers to the broad, ongoing shift in our transportation system from internal combustion engine vehicles to those powered by electricity.

Vehicle Grid Integration (VGI): A broad term that encompasses the many ways in which a vehicle can provide benefits or services to the grid, to society, the EV driver, or parking lot site host by optimizing electric vehicle interaction with the electrical grid. VGI includes both active management of electricity (e.g., bi-directional management, such as vehicle-to-grid [also known as V2G] or unidirectional management such as managed charging [also known as V1G]) and/or active management of charging levels by ramping up or down charging power rates, and passive management via electricity rates or general education.

Abbreviations

CAAP: Climate Action and Adaptation Plan

CARB: California Air Resources Board

DAC: Disadvantaged Community

EV: Electric Vehicle

eVMT: Electric Vehicle Miles Traveled

EVSE: Electric Vehicle Supply Equipment

kWh: Kilowatt-hour

LACI: Los Angeles Cleantech Incubator

LADWP: Los Angeles Department of Water and Power

LCFS: Low Carbon Fuel Standard

MBS: Moving Beyond Sustainability

MSA: Metropolitan Statistical Area

NR Fleet: Metro's Non-Revenue Fleet

P&R: Park and Ride Station

SCAQMD: South Coast Air Quality Management District.

SCE: Southern California Edison

TNC: Transportation Network Company

VGI: Vehicle Grid Integration

Appendix A. EV Parking Strategy Stakeholders and Interdependencies:

Table A16. EV Parking Strategy stakeholders and interdependencies

Metro	
EV Parking Strategy Stakeholder	**Project Role**
Office of Sustainability	> Leads EV Parking Strategy development and coordination between stakeholders
Real Estate, Facilities, and Maintenance	> Site planning for Metro facilities > Coordination with facilities on developing and implementing charger maintenance plans
Engineering	> Support for site design and development
Parking Management	> Prioritization, planning, and construction of EV charging at P&R sites > Management of EV charging spaces and enforcement of EV charger use policies
Office of Management & Budget	> Capital and operational budget planning for charging and vehicle investments
Non-Revenue Fleet Operations	> Coordination on potential fleet and employee site planning for non-revenue infrastructure
Office of Extraordinary Innovation	> Coordination on new mobility projects, public-private partnerships, and concepts for public charging use
Planning and Program Management	> Analysis of long-term future needs for employee and public charging > Ensure that capital projects are designed for compliance with CALGreen Tier 2 standards
Vehicle Technology and Acquisition (ZEB)	> Coordination of electrical capacity and utility planning
Procurement and Grants Departments	> Procurement of installation services, charging stations, and management > Application for state/federal grant funding opportunities

External	
EV Parking Strategy Stakeholder	**Project Role**
Utilities and CPUC: LADWP, SCE, City of Vernon, Pasadena Water and Power	> Planning for charging capacity > Incentive program participation > Approval and oversight of investor-owned utility charging programs
California Department of Transportation (Caltrans)	> Coordination on the Caltrans-owned property
Local Governments and State Agencies	> Regional planning for EV charging access and growth > Identifying grant and incentive program opportunities
EV and Charging Industries, and Non-profit EV organizations	> Consulting with EV industry and non-profit leaders on best practices and future trends in the vehicle and charging technology and use > Identifying potential public-private partnership opportunities > Research partnership opportunities (e.g., UCLA, Transportation Network Companies, LA28) > Outreach partnership opportunities

Appendix B. EV Parking Strategy Methodology, Modeling, and Assumptions

Metro used internal operations data and publicly available industry research to inform all aspects of the proposed EV Parking Strategy deployment and estimated costs. We will continue to refine the data and assumptions underlying the EV Parking Strategy over time to reflect the most recent and accurate information, and these updates will continue to direct our strategic plans over time. The sections below contain an overview of the methodologies, modeling, and data assumptions used in Employee and P&R charging planning.

Employee Planning

While relatively few employees commute via EV today, Metro estimates our facilities will require approximately 10 Level 2 chargers per 100 employee parking spaces over the long term. This estimate is based on an average regional commuting distance of 21 miles per employee and assumes that not all employees with EVs will need or want to charge at work (due to access to home charging or shorter commutes that do not require workplace charging. Based on this modeling, Metro will aim to build capacity for the longer-term target of 10% EV charging spaces while initially deploying fewer chargers at all locations.

In an informal survey of Division and Facilities Managers, nearly two-thirds of the 39 respondents indicated no concerns about parking access or electrical installation if EV chargers were to be installed at their location. One in five respondents identified potential concerns, with several citing current limited parking availability at their location and concerns that EV charging would further reduce available spots.

"There are more than a few employees here, currently on different shifts, that would benefit from EV charging stations on the property."

– Survey Response from Division 13 Employee

Transit Riders Planning

P&R facilities serve as an important link in Metro riders' first and last-mile connection to the region, especially those who cannot access a Metro station by walking, biking, transit, or any other modes. Analyzing how drivers use P&R facilities and how those patterns align with future needs for charging can inform estimates of eventual charging needs. Data for Metro's Supportive Transit Parking Program Master Plan in 2017 found that 31% of Metro P&R users live within two miles of their preferred station and 71% live less than five miles away. Only 11% live more than 10 miles from their preferred station.[29] Assuming that nearly 90% of P&R users have a daily round-trip of under 20 miles, a Level 2 charger would replenish this round-trip range in just over an hour if charged daily. The Master Plan survey also found that 69% of drivers park for 4-10 hours, indicating that if drivers charged daily via a Level 2 charger, 75-90% of their time at an EV charging space would be spent plugged in but not charging, inefficient use of charging resources.

[29] *Metro (2017). Supportive Transit Parking Program Master Plan – Appendices, December 2017.* *http://libraryarchives.metro.net/DPGTL/parking/Metro%20STPP%20Report%20Appendix%2020180110.pdf*

However, data from chargers previously installed at P&R facilities[30] indicate EV drivers are more efficient in their charger usage. While drivers do spend a significant amount of time plugged in but not charging, the average charging time was three and a half hours versus six hours of total time occupying spaces. Analysis of charging data revealed just under half of EV charging users moved their vehicle within 20 minutes of completing a charge, which is to be expected if P&R users take transit to a different location and are not nearby to move their car. This variation from the Master Plan survey data indicates that EV P&R users either charge less frequently than daily or drive significantly further than the typical P&R population.

Both the Master Plan survey and charging station data indicate that most EV drivers at P&R locations likely could suffice with lower-powered Level 1 charging. However, the CALGreen codes require Level 2 charging, and given the need to trench and install networked charging stations, it is unclear if installing Level 1 chargers would yield any significant cost advantage. By providing Level 2 charging, drivers can use stations every few days or once per week and obtain the commuting range they require during the four to ten hours that they are typically parked; this allows for more efficient use of fewer charging stations.

Like employee charging, Metro will require networked charging stations at P&R locations to enable payment from EV drivers, track energy consumption for LCFS credit, monitor usage trends and maintenance issues, and for potential future load management or vehicle-grid integration activities.

Cost Modeling

The below sections include brief descriptions of the cost elements that informed the EV Parking Strategy estimates. Metro assumes a 3% annual escalation in costs over the EV Parking Strategy term, and a 10% contingency on capital and operational costs to account for potential site variability and other unplanned costs.

Each of the below-cost elements may be highly variable. Metro will monitor both internal costs and public literature to update cost assumptions as new or more accurate data becomes available.

Capital Costs:

- **Make-ready infrastructure:** Estimated at $17,024 per port for non-new-construction sites, based on industry literature review. Includes the design, materials, and construction costs for infrastructure from the utility service connection to the parking space.
    - For new construction P&R sites, make-ready costs are assumed to be included within site construction costs (as make-ready construction is required per code). As noted above in Section 3, make-ready costs for new construction are significantly lower than for retrofit sites.
- **Chargers:** Estimated at $4,444 per port, including installation and activation of the charger unit based on industry literature review, and assuming a regular charger replacement rate.
- **Utility incentives**: Includes funding for make-ready infrastructure and rebates for chargers at sites in SCE service territory, and rebates for chargers in LADWP service

[30] *Data analyzed was from Oct-Nov 2019, prior to Covid-19 impacts that may have shifted use of P&R lots and EV chargers.*

territory (see Section 5 for more detail about incentives). Additional grant funding opportunities may become available over the Plan period.

Operational Costs:

- **Charger O&M:** Estimated at $1,053 per port annually based on Metro historical data, includes annual maintenance fees, networking connectivity, and other service costs.
- **Electricity:** We assume an average rate of $0.16 per kWh for electricity to charge EVs. Rates vary significantly between utilities, and average costs will vary over time as rates change and as utilization at charging sites grows over time.
    - For P&R and employee charging, modeling assumes an initial utilization (10% load factor), growing with annual escalation each year.
- **Program management:** Assumes up to three full-time employee equivalents each to oversee the employee or P&R charger networks
- **LCFS Revenues:** Based on current futures prices for credits provided by SRECTrade in November 2021. These prices range from $120 - $150 per credit, equivalent to approximately $0.11 - $0.13 per kWh for light-duty charging.
- **Charging Revenues:** Assumes charging prices are roughly equal to electricity costs ($0.16/kWh) and uses the same charger utilization assumptions as electricity cost estimates. In reality, these values will likely not be equal.

Appendix C. Public Charging Preliminary Evaluation and Opportunities

As Metro evaluates opportunities to develop multi-modal charging solutions for public use, we have identified two initial opportunities to further investigate:

Supporting First-Mile/Last-Mile Electrification

New and growing modes of connection to Metro's transit hubs will enable more riders to complete fully zero-emission trips. Metro has set First Last Mile Strategic Plan Goals to address these challenges, which include expanding the reach of transit through infrastructure improvements, maximizing multi-model benefits and efficiencies, and building on the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Countywide Sustainability Planning Policy and Implementation Plan. In identifying future deployment of EV chargers, Metro should consider how to centralize charging infrastructure within multimodal transportation hubs to facilitate transit uses, improve accessibility to stations, and promote transit services.

The EV Parking Strategy will explore opportunities to develop fast-charging stations at or adjacent to Metro properties that could be used by the Metro Micro service when electrified in the future. The Metro Micro service, which launched in December 2020, provides a ride-hailing service that serves targeted communities for essential trips and links customers to additional legs of their Metro journey. These stations could also be used for Transportation Network Companies (TNCs), whose fleets will be increasingly comprised of EVs over the next decade.

SB 1014, enacted in 2018, directs CARB and the Public Utilities Commission to reduce emissions per passenger mile driven by TNC vehicles and increase the adoption of electric vehicles among their drivers through a Clean Miles Standard. The proposed rule from CARB would require 30% of vehicle miles traveled to be electric by 2026 and 90% by 2030.[31] As of 2019, TNCs made up 2.5% of the vehicle population in California, which equates to hundreds of thousands of vehicles.[32] This rapid increase in electrification of rides provided by TNCs would drastically increase the demand for public fast charging. Both TNC and ride-hailing services have high daily mileage requirements and, even with longer-range electric vehicles available today, typically require fast charging to meet these daily driving needs. The chargers could also support market development for electrification of last-mile goods movement (i.e., delivery vehicles) within the region.

The higher upfront costs of fast charging installations, coupled with a long, uncertain payback based on utilization, have discouraged widespread private investment as the EV market expands. Metro may be positioned to leverage our long-term planning horizon, property, and connection to first/last-mile trips to efficiently develop fast-charging fueling hubs for internal and public use.

Joint Development Projects

Metro's Joint Development program helps build transit-oriented developments on Metro-owned properties. While these projects are focused on increased transit access and reduced dependency on auto use, they represent an opportunity for Metro to also increase access to EV charging for potential residents or businesses at future sites. Metro's recently adopted updated

[31] *California Air Resources Board, Proposed Clean Miles Standard Regulation – Appendix A. March 30, 2021.* https://ww2.arb.ca.gov/sites/default/files/classic/regact/2021/cleanmilesstandard/appa.pdf

[32] *California Air Resources Board, Proposed Clean Miles Standard Regulation – Base Year Emissions Inventory Report, December 2019.* https://ww2.arb.ca.gov/sites/default/files/classic/regact/2021/cleanmilesstandard/appb.pdf

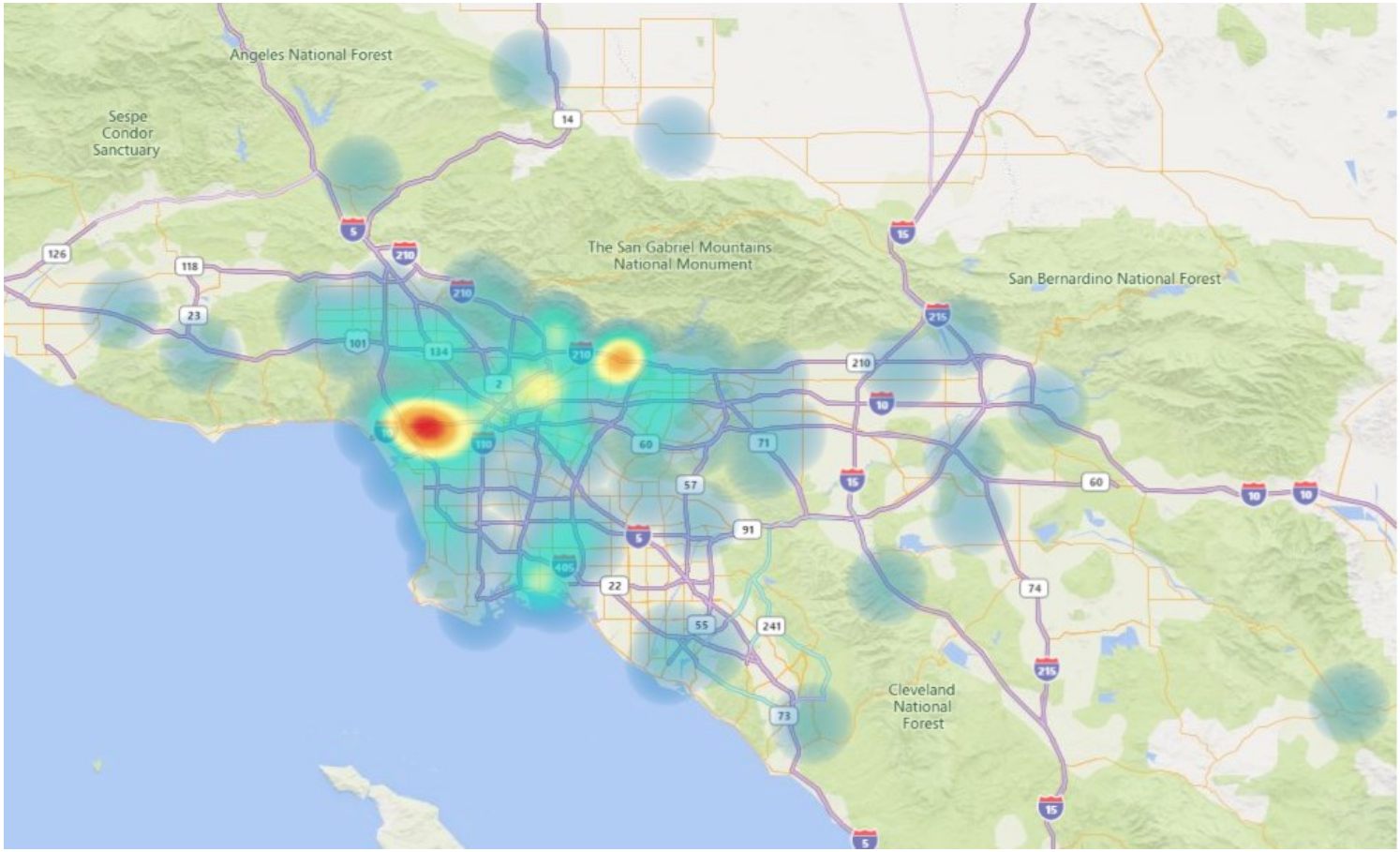
Joint Development Policy[33] also requires that sites target 100% income-restricted housing units and limits the number of allowed parking spaces per bedroom in residential developments. The EV Parking Strategy will coordinate with Joint Development to identify opportunities to exceed CALGreen code requirements and offer greater access to EV charging for these developments. Coordination will also allow Metro to ensure Joint Development is also working to provide electric transportation options to the communities in which Joint Development projects are realized. For example, the EV Parking Strategy and Joint Development Program can help connect developers with utility incentives or grant programs, which have taken a strong focus on multi-unit dwelling charging access in California since 2015.[34]

[33] Metro, Board Report – Joint Development Policy Update (File # 2021-0192), June 16, 2021. https://metro-pdf-merger.datamade.us/document/2021-0192

[34] Southern California Edison's Charge Ready Program offers additional incentives and programmatic options to encourage development of charging at multi-family buildings, including a rebate for new-construction projects that is only available to multifamily sites.

EV Users are concentrated around the Westside, Central LA, and San Gabriel Valley

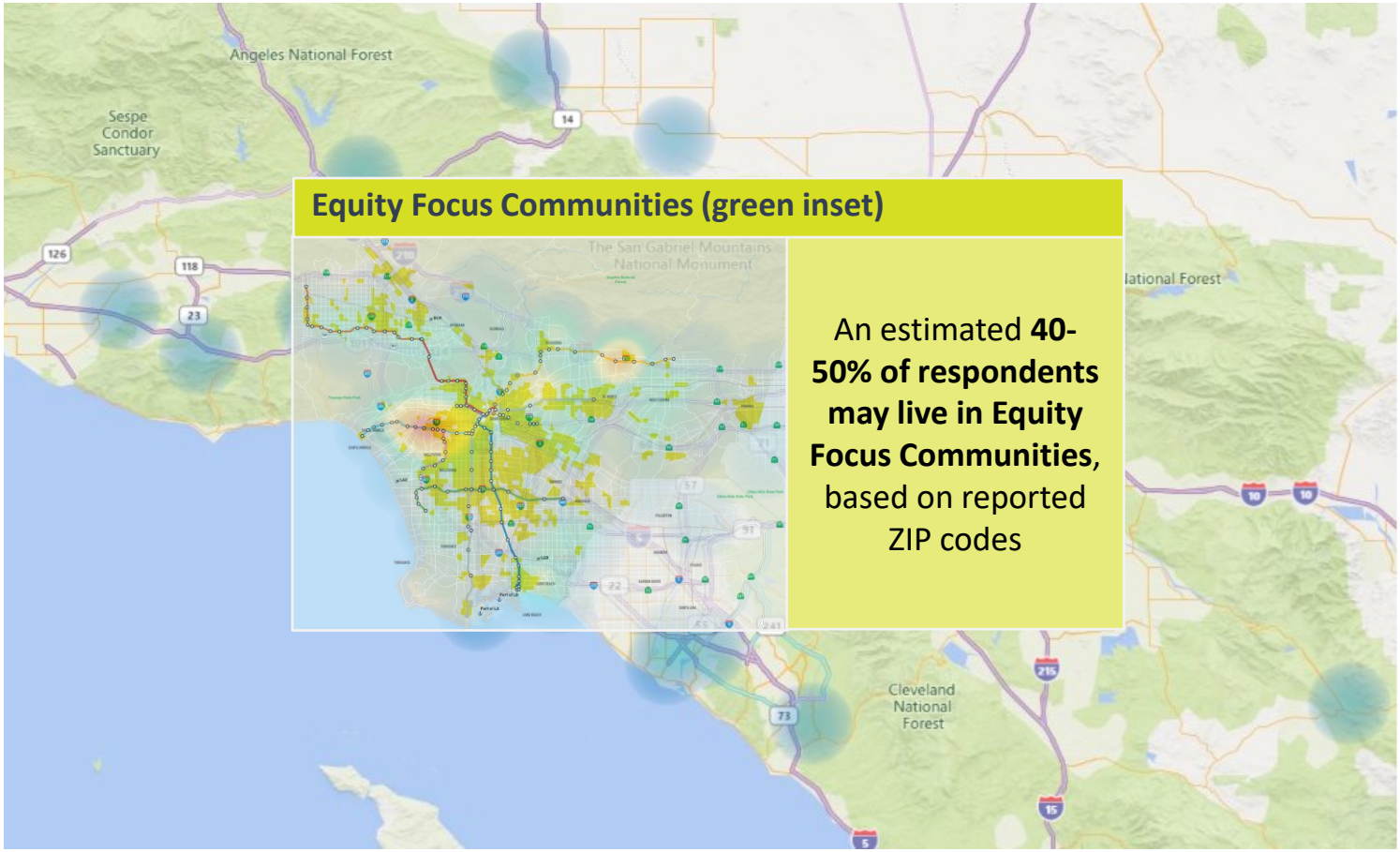
Survey respondent home ZIP code



Metro

EV Users are concentrated around the Westside, Central LA, and San Gabriel Valley

Survey respondent home ZIP code[1] (underlying heatmap) with Equity Focus Community overlay in green census tracts



1) ZIP codes and Equity Focus Communities use different boundaries without perfect alignment. The estimate above is based on a GIS analysis of overlap of the two geographical measures but may overestimate the true overlap.

Item 2024-1074: Electric Vehicle Charging Stations

Metro Charging Stations and Projects

Existing EVSE

SCE Charge Ready sites

DOT CFI Grant sites

DWP MOU sites*

LA28 Mobility Hub sites

Notes

1. Not all EV Parking Sites per *the 2022 Board Approved Electric Vehicle Parking Strategic Plan are shown here,* but all of these locations are part of this forthcoming procurement for Third Party Operations and Maintenance.
2. Four typologies of chargers will be operated across four use types: 1) employee charging, 2) non-revenue fleet charging, 3) park-and-ride charging, and 4) public charging.

Issue

- Current EV Charger Network is executed through third-party vendor
- Contract will expire on July 31, 2025
- Electric Vehicle Charging Stations solicitation is necessary to replace the existing contract
  - Scope of Work: Specialized electric vehicle (EV) charging network solution, monitoring, operation, warranty, maintenance, and equipment replacement and installation.
  - This scope determination *requires* a competitively negotiated process instead of a low-bid procurement under the Public Utilities Code (PUC) §130242
  - *Before initiating the formal procurement process*, PUC §130242 states that a body such as the Metro Board, upon finding by a two-thirds vote of all members, awarding the contract through competitive negotiation will achieve for the authority a more competitive solicitation process concerning quality, timeliness, price, and other private sector efficiencies, relevant to the integration of design, project work, and components.
  - This requirement and process are aligned with LACMTA's Acquisition Policy and Procedure Manual.

Other Considerations

- Scope of Work of forthcoming procurement
  - Does not conflict with existing union agreements nor overstep the work and performance expectations of existing operations, facilities and maintenance staff
- Scope has a direct and positive impact to safety, service quality, system reliability, performance, and overall customer satisfaction
- Utilization of State Disadvantaged Communities designations for prioritization factors. Conducted customer survey to ensure equitable benefit outcomes
- Forthcoming procurement will have robust contracting opportunities for SBE/DBE firms. Targeted outreach will be conducted for active participation.

- **RECOMMENDATION:** *AUTHORIZE THE Chief Executive Officer (CEO) to solicit competitive negotiations Request for Proposals (RFPs), pursuant to PUC §130242 and Metro's procurement policies and procedures for operations and maintenance of Electric Vehicle Charging Stations.*

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2025-0005, **File Type:** Policy **Agenda Number:** 24.

EXECUTIVE MANAGEMENT COMMITTEE
FEBRUARY 20, 2025

SUBJECT: ELECTRIC VEHICLE CHARGING POLICY

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

ADOPT Metro Electric Vehicle (EV) Charging Policy (Attachment A).

ISSUE

Metro's existing electric vehicle service equipment (EVSE) inventory includes 108 Level 2 EVSE units, 103 of which are currently installed and active across several Metro operating divisions and park-and-ride facilities. This network will grow to as many as 3,000 chargers over the next five years. Metro owns and operates these EVSE for charging across three use-types: 1) employee charging, 2) non-revenue fleet charging, and 3) public charging (including park-and-rides).

This EV Charging Policy clarifies and standardizes Metro's practice for operating and maintaining its growing EVSE network, as well as specific use and pricing requirements to which EVSE users must adhere.

BACKGROUND

Metro has been working to create a more environmentally sustainable, equitable, and resilient public transportation system. Metro's commitment to climate action and resilience is included in several planning documents, including but not limited to its 10-year Sustainability Strategic Plan, *Moving Beyond Sustainability* (MBS); its 2019 *Climate Action and Adaptation Plan* (CAAP); the *Customer Experience Plan*; and the *Long-Range Transportation Plan* (LRTP). Providing a low-carbon fuel mobility alternative through the use of EVs is a component of these plans.

Fleet electrification is a critical step for Metro to achieve a 79% reduction in GHG emissions by 2030 (from 2017 levels) and to eliminate its GHG emissions by 2050. It is also critical to achieving criteria air pollutant reduction goals set forth in the *MBS*. To these ends, Metro has taken steps to procure new electric vehicles to power its non-revenue fleet: in 2024, Metro added 21 new EVs, with plans to procure approximately 150 new EVs in 2025.

Metro is also committed to reducing GHG emissions across our service region, including the promotion of the use of electric vehicles. Installation and ongoing operation of EV Chargers is an essential component of EV adoption. The regional availability of EV chargers must be in place to achieve successful growth in EV usage. In June 2022, the Board approved the 2023-2028 *Electric Vehicle Parking Strategic Plan* (EVPSP) as a strategic blueprint for sustainable, cost-effective, and efficient investments in EV charging infrastructure for our region.

DISCUSSION

A growing number of our employees and patrons are buying or leasing EVs. It is important that affordable EV charging remains an increasingly critical resource for employees and riders. As the state moves toward a complete ban on sales of new internal-combustion-engine-powered vehicles in 2035, this number will continue to grow.

Outlined in the Board adopted Electric Vehicle Parking Strategic Plan (2022) is Metro's plan to grow its network to as much as 3,000 chargers over the next five years. As this network grows, there needs to be two goals achieved:

1) standardization on the use of chargers through an agency-wide policy
2) a modernized fee structure that better aligns revenues and costs, meets state regulations and does not exceed average regional prices for EV charging

Meeting these goals through a Board-adopted policy will ensure that there is fair, equitable, and sustainable use of Metro's EV charging network both within the agency and across LA County. Furthermore, collection of appropriate charging rates will ensure that EV chargers are always available, reliable, equitable and affordable.

The EV Charging Policy contains the following:

1. Standards pertaining to the use and availability of public, employee, and non-revenue fleet EVSE.
2. Rules with respect to the duration of EV charging for short-term and long-term use.
3. Metro's rights and responsibilities with respect to updating established rates, operational control, and safety protocols for all Metro EVSE.
4. Rules and limitations with respect to misuse, misappropriation, liability and damages for all Metro EVSE.
5. Pricing for the general public and Metro employees that proposes a time-of-use fee structure.

The following table shows the current and proposed pricing structures, with estimated annual revenues and costs per EV charging parking space:

Rate	Pricing Structure	Driver Fee Revenue	Electricity and O&M Costs	Net Revenue (Cost)
Current Pricing	**$1/hour** Capped at $3	$769	$2,999	$(2,230)
Proposed Time-of-Use	**$0.34/kWh Off-Peak** (all other hrs) **$0.49/kWh Peak** (10am – 8pm)	$3,032	$2,999	$33

The peak (10 a.m. - 8 p.m.) and off-peak (8 p.m. - 10 a.m.) periods applied to the proposed pricing structure are based on the Los Angeles Department of Water and Power's (LADWP) weekday Electric Time-of-Use Residential Rates. The periods are aligned with LADWP's as they most closely reflect when employees and users charge their vehicles at Metro EVSE (i.e., during the day), and because most Metro EVSE fall within LADWP's service area.

Additional details are also provided in Attachment B. Once established, staff intends to go back to the Board if any future changes to the rate are outside of a 20 percent marginal increase or decrease.

The EV Charging Policy itself is expected to have no impact on the accessibility and affordability of EVSE, though the pricing may do so. While the pricing change presents a nearly tripling of the cost to use a charging station, publicly available information suggests that the average cost to charge a vehicle in California is $0.50/kWh, and across the Los Angeles region the price varies from $0.25/kWh to $0.59/kWh. The proposed update to $0.34/kWh at off-peak hours and $0.49/kWh at peak hours falls under the state average and well within the regional range, keeping charging with Metro EVSE affordable and accessible relative to other available EV Charging options in the region.

To operate and maintain our growing network of EVSE, Metro must also make sure that there is ongoing communication and collaboration between leadership, EV charging program managers, non-revenue fleet operations, employees and public users. This will ensure that Metro EVSEs are available, accessible and affordable. Metro intends to maintain open lines of communication between these parties to ensure that access to EVSE remains fair and uninterrupted.

Furthermore, Metro anticipates that demand for EV charging will grow significantly over the next 10 years; and that federal and state regulations will continue to evolve around increasing access to and affordability of EV charging. Metro commits to adaptability around the installation, siting and charging rates of all its public and employee EVSE to ensure that Metro remains compliant with federal and state regulation, as well as ensure that Metro's EVSE network grows in a way that is cost-effective, equitable, and accessible to all who live, work, and play in LA County.

DETERMINATION OF SAFETY IMPACT

The approval of this recommendation will have a direct and positive impact to safety, service quality,

system reliability, performance, and overall customer satisfaction as the existing and new electric vehicle charging stations are installed, operated, and maintained.

FINANCIAL IMPACT

Adoption of the EV Charging Policy is expected to have a positive financial impact. The new pricing will significantly increase revenues per EVSE, allowing Metro to potentially break even on the costs to operate and maintain its EVSE network. This poses a significant improvement from the current pricing structure, which operates at a net loss. No additional funding is needed for this action.

As Metro's EVSE network grows, Metro will continue to report electricity generated by its EVSE to the California Air Resources Board (CARB) through the Low Carbon Fuel Standard (LCFS). This program issues monetary credits to those who dispense low-carbon fuels correlating to the amount of GHG emissions avoided by using that fuel relative to a conventional fossil fuel (e.g., gasoline, diesel). A growing network will correspond to increased revenues from the sale of LCFS credits generated by dispensing electricity as a fuel. Up to 80% of Metro's LCFS revenues are currently allocated to support the purchase of our zero-emissions bus fleet and related infrastructure.

The LCFS revenue will complement the Public & Employee Charging Pricing; and will allow Metro to potentially generate a positive net revenue from the operations and maintenance of its EVSE. Any positive revenue will be deposited into the General Fund and used to reinvest into future sustainability and resiliency projects through programs and funding administered through the Office of Sustainability.

EQUITY PLATFORM

This policy considers the importance of having competitive EV charging rates at Metro stations that are not disproportionately higher than alternatives available to LA County residents and Metro patrons. Metro is also evaluating the ability to link EV charging payment systems with Metro's TAP system and other payments, as well as the ability to provide discounted EV charging aligned with existing Low Income (LIFE) and Senior/Medicare/Customer with Disability programs.

Metro acknowledges that pricing determined by income status is a sensitive but necessary issue to address. Should future revisions to charging prices be needed, Metro will consider introducing a lower rate option to low-income users and coordinate with its operations and maintenance vendor to determine the best approach for offering more affordable charging rates to those who need them.

Metro will continue to site charging stations and grow its EVSE network with an equity-forward strategy. There are currently 108 EV chargers across the Metro system in 26 locations. The mix of locations include six Metro Bus and Rail Divisions where Non-Revenue Fleet are charged, and 20 public charging locations, specifically located at Metro Park and Rides. Metro's EV Parking Strategic Plan, approved by the board in 2022, also utilized state Disadvantaged Communities designations in its prioritization factors, prioritizing sites sited within Disadvantaged Communities to ensure customers in these communities benefit from access to EV charging infrastructure through the growth of Metro's EV charging network. Given that Metro Equity Focus Communities (EFCs) are defined by high rates of households without access to an automobile, this was not used as a prioritization metric

for the Plan, though an estimated 26% of charging ports would be deployed in EFCs.

Metro also conducted a demographic survey of current EV charging users in 2023 to better understand who uses and how customers experience the existing park and ride charging network. This survey results indicate that an estimated 40-50% of these users may live in, or within proximity to, an Equity Focus Community, based on their reported ZIP code. As noted, EFCs have high rates of households without access to an automobile. The survey also found that more than one in four users lack access to home charging, indicating park and ride charging provides a necessary source of charging access for those users. As EV adoption grows among residents living in multi-family buildings, which often lack charging access, locations like Metro's park and rides and workplaces can fill in as reliable charging locations, reducing barriers to EV adoption among these customers.

Additionally, the survey yielded several findings regarding demographics of EV charging users. Current Metro EV charging users:

- were more likely to identify as White/Caucasian and Asian/Pacific Islander than the general Metro ridership population, and less likely to identify as Hispanic/Latino or Black/African American than general ridership;
- were more likely to speak English at home, and less likely to speak Spanish at home compared to general Metro ridership;
- were more likely to be high-income (over $100,000 household income) and less likely to be low income (less than $50,000 household income) than general ridership; and
- were more likely to live in single-family detached homes and less likely to live in either small (2-4 unit) or large (5+ unit) multifamily buildings.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

While this policy does not directly encourage taking transit, sharing a ride, or using active transportation, it is a vital part of Metro operations as it supports Metro's increasing share of electric non-revenue vehicles, encourages employees to use low-carbon alternatives like electric vehicles to travel to work, and enables Metro riders to use electric vehicles as a first-last mile solution by providing an increasing amount of EV charging options at Metro Park & Rides.

Because the Metro Board has adopted an agency-wide VMT Reduction Target, and this item generally supports the overall function of the agency, this item is consistent with the goals of reducing VMT.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

These recommendations support Metro Strategic Plan Goal No. 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 with partners to develop EV charging and help meet City and State initiatives to accelerate EV adoption 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 are interested in owning an EV but lack reliable locations to charge one.

These goals strive to position Metro to meet the MBS commitment of a 79% reduction in greenhouse gas emissions from internal operations by 2030. They also include measures to install EV charging stations at Metro facilities for employee commuter use.

ALTERNATIVES CONSIDERED

The Board of Directors may consider the following potential alternatives:

1. Reject adoption of this EV Charging Policy; or
2. Adopt this EV Charging Policy, but direct staff to revise its pricing recommendations.

Staff does not recommend rejection of either this policy or the proposed pricing. The policy provides standardization on the use of EV chargers agency-wide. Modernizing our fee structure better aligns revenues with costs, as well as ensures that Metro aligns with state regulations while offering competitive but equitable pricing with the regional market for EV charging.

NEXT STEPS

Upon Board adoption, the Office of Sustainability will work across internal departments and with external partners and stakeholders to help implement, communicate, and enforce the EV Charging Policy. The Office of Sustainability will periodically report on the progress towards meeting the goals of the policy.

ATTACHMENTS

Attachment A - Electric Vehicle (EV) Charging Policy
Attachment B - Metro EV Charger Pricing Proposal and Details

Prepared by: Cris B. Liban, Deputy Chief Sustainability Officer, (213) 922-2471
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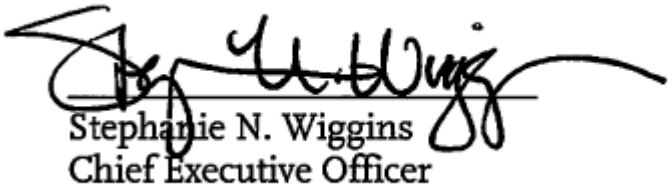
Reviewed by: Tim Lindholm, Chief Program Management Officer (213) 922-7297



Stephanie N. Wiggins
Chief Executive Officer

Los Angeles County
Metropolitan Transportation Authority

Metro

GENERAL MANAGEMENT
Electric Vehicle (EV) Charging Policy

(GEN xx)

POLICY STATEMENT

Personal automobiles make up a significant amount of Los Angeles County residents' daily commutes. The Los Angeles County Metropolitan Transportation Authority (LACMTA) realizes that battery electric vehicles (EVs), including plug-in hybrid electric vehicles (PHEVs) are becoming an increasingly larger part of drivers' commutes and travel across LA County. To encourage the use of public transportation and reduce vehicle emissions per LACMTA Board of Directors (Board) directives, LACMTA has determined the need for Electric Vehicle (EV) charging and set up applicable infrastructure at LACMTA-owned and operated facilities.

PURPOSE

This policy sets forth the reasons and guidelines for EV charging at LACMTA facilities.

APPLICATION

This policy applies to all employees, riders, and others using EV charging at LACMTA-owned or operated facilities.

_____	_____	_____
APPROVED: County Counsel or N/A	Department Head	ADOPTED: CEO

Effective Date: _____

Date of Last Review: _____

Los Angeles County
Metropolitan Transportation Authority

Metro

GENERAL MANAGEMENT
Electric Vehicle (EV) Charging Policy

(GEN xx)

1.0 GENERAL

LACMTA owns and operates a network of EV charging stations and infrastructure at LACMTA facilities, including at divisions and parking facilities. It provides EV charging as a fee-based service for the benefit of LACMTA employees and the public. EV charging stations may be installed, taken offline, or removed at the discretion of LACMTA.

2.0 PROCEDURES

2.1 EV Charging

2.1.1 Availability

Employee and public EV charging stations are subject to limited supply, and LACMTA does not guarantee the availability of Electric Vehicle Service Equipment (EVSE) for anyone who wishes to use them.

LACMTA owns and operates EV charging stations and infrastructure to support its Revenue and Non-Revenue fleet vehicles. Fleet EV charging infrastructure and parking stalls are reserved for the above fleet uses. They are unavailable to LACMTA employees operating non-LACMTA vehicles, unless otherwise specified by signage on-site. The public is prohibited from using non-public EV charging stations.

2.1.2 Use and Access

Public EV charging stations may require users to register an account with a third party via website or mobile application before use. In such cases, account registration will be free, and instructions will be available online and at charging stations.

2.1.3 Installation and Replacement

All capital project staff, and non-revenue operations and maintenance staff are to coordinate with the Environmental Services Department and its EV Charging Program staff regarding the installation and replacement of EV charging stations. With respect to capital projects, project managers are to coordinate with the program for specifications surrounding EV chargers that can be incorporated into LACMTA's EV charging network. For non-revenue operations, staff are to inform the EV Charging Program when there is a need for a new charging station or a replacement (whether for a part or a full station). Coordination and proactive notice of any need for EVSE with

Environmental Services is required so that the program can support with procuring and furnishing any required parts or stations.

2.1.4 Charging Duration

To provide as many people as possible with the opportunity to charge their EV, it is recommended that anyone at an EV charging station only keep their car there for as long as it takes to complete the charge. LACMTA reserves the right to develop short- and long-term charging stations to satisfy different use types.

2.1.4.1 Short-term charging

Short-term charging stations and associated parking stalls are intended to be occupied only while actively charging a vehicle. Anyone using short-term charging stations may receive charging status alerts and incur additional fees for idle dwell time after charging is complete. Short-term EV parking stalls will be clearly marked for short-term use and fees and/or time-limits will be displayed on signage and/or the charging station.

2.1.4.2 Long-term charging

Unless otherwise marked, charging stations and associated parking stalls are intended for long-term charging, allowing the stall to be occupied during vehicle charging and until the user leaves the location. No idle dwell time fee is associated with long-term charging stations. Any time limits associated with long-term charging spaces will be clearly marked via signage at the parking space.

2.1.5 Rates

LACMTA staff will recommend an initial charging rate for all users to be submitted to the Board for approval prior to implementation. Based on staff recommendation, the Chief Executive Officer (CEO) may authorize future changes to the rate within a 20 percent marginal increase or decrease and will notify the Board of any changes. Changes in the rate greater than 20 percent marginal increase or decrease will require Board approval. EV charging rates are not inclusive of any daily parking rates duly authorized by Title 8 of the Metro Parking Ordinance. Metro will review charging rates as needed, but not less than an annual basis.

2.1.6 Control

LACMTA reserves the option to monitor and modify charger power delivery in real time to optimize electrical circuit utilization, manage electricity and demand charge costs, and participate in demand response or other energy market programs, as available.

2.1.7 Safety

To ensure safe EV charging, users may only charge their vehicles in designated parking spots. Vehicles may not be charged using standard electrical outlets; and devices designed to charge a vehicle from a standard electrical outlet are prohibited from use.

2.1.8 Misuse of EV Charging Stations

Any vehicle found using unauthorized charging equipment or device may be cited under Title 8 of the METRO Parking Ordinance. Vehicles in violation of this policy may be denied further access to LACMTA EV charging stations, parking at LACMTA-owned or operated facilities; and, when towing signs are present, may subject the vehicle to impoundment at the expense of the vehicle owner. All unauthorized charging devices will be confiscated.

2.1.9 Misuse of LACMTA Fleet and Non-Revenue EV Charging Stations

Unauthorized use of fleet and non-revenue chargers is strictly prohibited. Employees may be subject to discipline, up to and including termination.

2.1.10 Misappropriation of Electricity at LACMTA Facilities

The connection and use of personal EV charging equipment to a LACMTA electric outlet or other source by its employees and the public is prohibited.

2.1.11 Liability and Damages

LACMTA reserves the right to pursue all rights and remedies existing in law or equity for any damages to its EV Charging Stations arising from improper use of equipment. Such remedies include, but are not limited to, reimbursement for all related repair or replacement costs, including seeking proceeds from the responsible party's insurance policy and legal action, as appropriate.

3.0 DEFINITION OF TERMS

Electric Vehicle (EV) – An automotive-type vehicle for on-road use, such as passenger automobiles, trucks, vans, neighborhood electric vehicles, electric motorcycles and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles.

4.0 RESPONSIBILITIES

The **Board of Directors** will set the initial EV charging rate structure and guidelines for all LACMTA-owned or operated facilities.

The **Chief Executive Officer (CEO)** will be responsible for future EV charging rate changes based on staff recommendation. The Board will be notified for approval whenever rate changes exceed a 20% marginal increase or decrease.

The **Deputy Chief Sustainability Officer (CSO) or designee** will review comparable EV charging rates and make recommendations for any rate adjustments.

The **Office of Sustainability** will collaborate with other applicable departments to determine the pricing implementation and site-specific needs and requirements for EV charging stations system-wide.

5.0 FLOWCHART

Not Applicable

6.0 REFERENCES

- Metro Parking Ordinance (Administrative Code, Title 8, Chapter 8-01)
- Employee Code of Conduct
- Customer Code of Conduct
- Non-Revenue Passenger Vehicles (GEN 16)
- Parking (GEN 17)

7.0 ATTACHMENTS

Not Applicable

8.0 PROCEDURE HISTORY

02/27/25 New Policy

Attachment B. 2025-005: Metro EV Charger Pricing Proposal and Details

Metro

Current and Proposed EV Charger Pricing Comparison

Rate	Pricing Structure	Driver Fee Revenue, annual per stall	Electricity and O&M Costs, annual per stall	Net Operating Revenue (Cost)	Net Revenue / Operating Cost per stall	Charger Replacement, annual per stall[1]	LCFS Credit Revenue, annual per stall[2]
Current Pricing	$1/hour Capped at $3	$769	$2,999	$(2,230)	-74%	$444	$290
Proposed Time-of-Use: 10a-8p Peak	$0.34/kWh Off-Peak (all other hrs) $0.49/kWh Peak (10am – 8pm)	$3,032	$2,999	$33	+1%	$444	$290

1) Estimated based on charger replacement and installation cost, amortized over 10-year equipment life.

2) In addition to driver fee revenues, Metro earns Low Carbon Fuel Standard credits for the electricity dispensed at its EV charging stations. Based on 2024 credit price trends and charger usage, these credits are worth approximately $300 per EV charging stall per year. Due to the variability of LCFS revenues, it is not included in the "Driver Fee Revenue" column or "Net Operating Revenue" values in the table above. In addition, per a previous Board Motion, up to 80% of LCFS revenues would be redirected towards the Zero Emissions Bus Program. Staff will regularly review this proposed EV Charger Policy and other operational metrics, including utilization, pricing, and other factors, to consistently optimize revenues program-wide.

Current and Proposed EV Charger Pricing Comparison

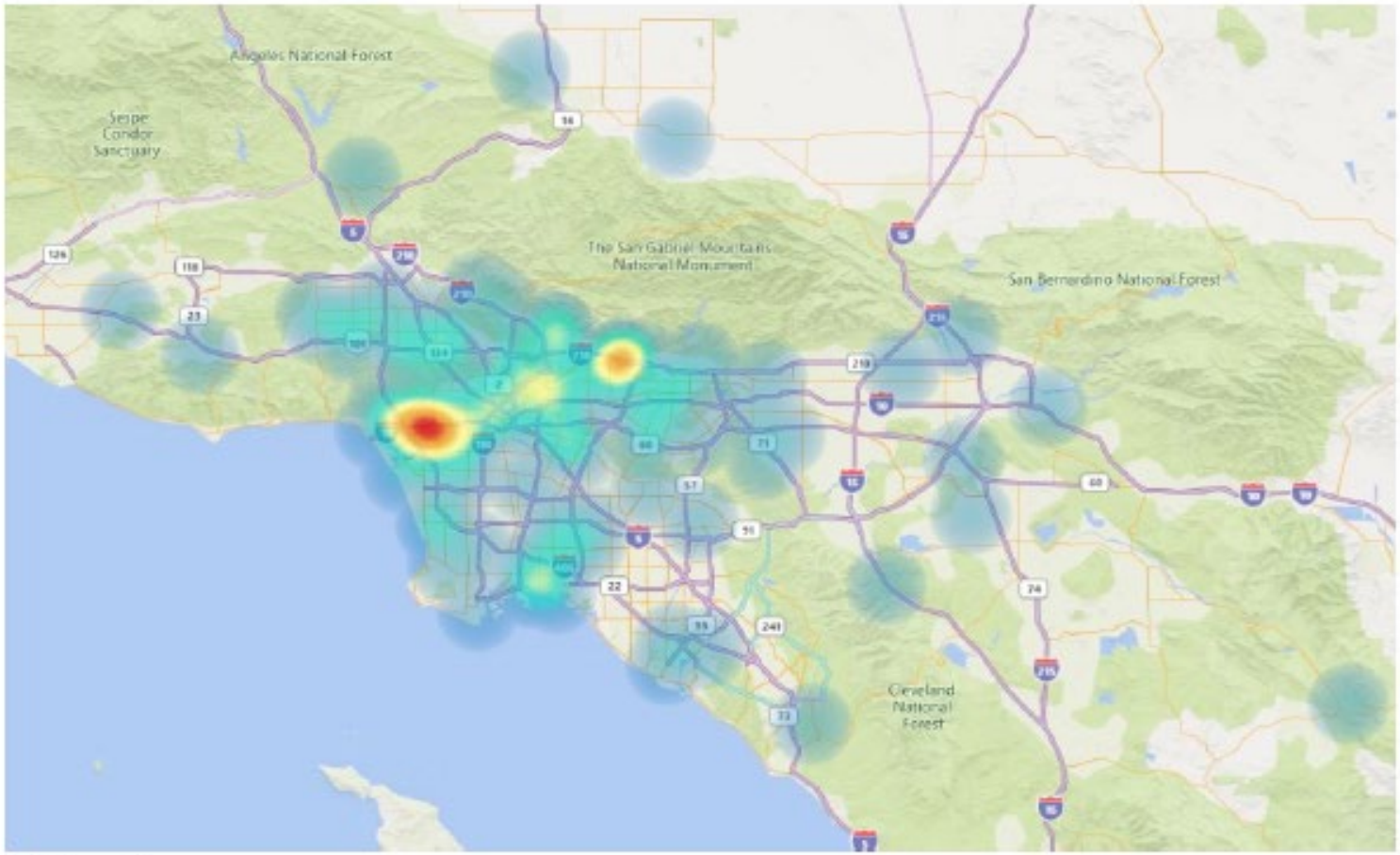
Rate	Pricing Structure	Equivalent Gas Price	Notes
Current Pricing	$1/hour Capped at $3	$1.24/gal	Current pricing structure results in under-collection of revenue compared to electricity and O&M costs. Current structure also creates significant variability in real price per energy used depending on actual length of charging session due to $3 cap.
Proposed Time-of-Use: 10a-8p Peak	$0.34/kWh Off-Peak (all other hrs) $0.49/kWh Peak (10am – 8pm)	$4.13/gal $5.95/gal	Proposed pricing model is similar to current LA County charger time-of-use prices.[1] Metro time-of-use periods set to align with LADWP electricity rate peak hours.[2]

1) *LA County charging rates are $0.30 during the off-peak and $0.45/kWh during peak hours. County peak hours are 4-9 p.m., which align with SCE electricity prices instead of LADWP.*
2) *The peak (10 a.m. - 8 p.m.) and off-peak (8 p.m. - 10 a.m.) periods applied to the proposed pricing structure are based on the Los Angeles Department of Water and Power's (LADWP) weekday Electric Time-of-Use Residential Rates. The periods are aligned with LADWP's as they most closely reflect when employees and users charge their vehicles at Metro EVSE (i.e., during the day), and because most Metro EVSE fall within LADWP's service area.*

EV User Concentrations Across LA County

> *EV Users are concentrated around the Westside, Central LA, and San Gabriel Valley*

Survey respondent home ZIP code



Item 2025-0005: Electric Vehicle Charging Policy

Issue

- **Metro has an expanding electric vehicle (EV) Charger network**
- **Demand for EV Chargers is increasing as patrons and employees are buying or leasing EVs**
- **Metro owns and operates different types of electric vehicle service equipment (EVSE): 1) employee charging, 2) non-revenue fleet charging, and 3) public charging (including park-and-rides)**
- **The Need for an EV Charger Policy**
  - Clarifies and standardizes Metro's practice for operating and maintaining its growing EVSE network
  - Align EVSE use revenues and costs, aligns EV Charger pricing with state regulations

- **RECOMMENDATION:** ***ADOPT Metro Electric Vehicle (EV) Policy***

Proposed EV Charger Policy and Pricing Elements

EV Charging Policy

- Standards pertaining to the use and availability of public, employee, and non-revenue fleet EVSE.
- Rules with respect to the duration of EV charging for short-term and long-term use.
- Metro's rights and responsibilities with respect to updating established rates, operational control, and safety protocols for all Metro EVSE.
- Rules and limitations with respect to misuse, misappropriation, liability, and damages for all Metro EVSE.

Proposed EV Charging Pricing Considers:

- The existing fee structure and anticipated annual gross and net revenues.
- The proposed time-of-use fee structure and anticipated annual gross and net revenues.

Current and Proposed EV Charger Pricing Comparison

Rate	Pricing Structure	Driver Fee Revenue, annual per stall	Electricity and O&M Costs, annual per stall	Net Operating Revenue (Cost)	Net Revenue / Operating Cost per stall	Charger Replacement, annual per stall[4]	LCFS Credit Revenue, annual per stall[5]
Current Pricing[1]	$1/hour Capped at $3	$769	$2,999	$(2,230)	-74%	$444	$290
Proposed Time-of-Use[2, 3]**:** 10a-8p Peak	$0.34/kWh Off-Peak (all other hrs) $0.49/kWh Peak (10am – 8pm)	$3,032	$2,999	$33	+1%	$444	$290

1) *Current pricing structure results in under-collection of revenue compared to electricity and O&M costs. Current structure also creates significant variability in real price per energy used depending on actual length of charging session due to $3 cap.*
2) *Proposed pricing model aligns with current LA County charger time-of-use prices. Metro time-of-use periods set to align with LADWP peak hours.*
3) *The peak (10 a.m. - 8 p.m.) and off-peak (8 p.m. - 10 a.m.) periods applied to the proposed pricing structure are based on the Los Angeles Department of Water and Power's (LADWP) weekday Electric Time-of-Use Residential Rates. The periods are aligned with LADWP's as they most closely reflect when employees and users charge their vehicles at Metro EVSE (i.e., during the day), and because most Metro EVSE fall within LADWP's service area.*
4) *Estimated based on charger replacement and installation cost, amortized over 10-year equipment life.*
5) *In addition to driver fee revenues, Metro earns Low Carbon Fuel Standard credits for the electricity dispensed at its EV charging stations. Due to the variability of LCFS revenues, this value is not included in the "Driver Fee Revenue" column or "Net Operating Revenue" values. In addition, per a previous Board Motion, up to 80% of LCFS revenues would be redirected towards the Zero Emissions Bus Program. Staff will regularly review this proposed EV Charger Policy and other operational metrics, including utilization, pricing, and other factors, to consistently optimize revenues program-wide.*

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2024-1110, **File Type:** Informational Report **Agenda Number:** 26.

EXECUTIVE MANAGEMENT COMMITTEE
FEBRUARY 20, 2025

SUBJECT: QUARTERLY REPORT: HOMELESS OUTREACH MANAGEMENT & ENGAGEMENT (HOME)

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the HOME Quarterly Report.

ISSUE

Los Angeles is experiencing a homelessness crisis, and many unhoused individuals seek shelter on Metro's rail and busway system. Since 2017, Metro has been funding local social service agencies to deploy multidisciplinary teams who engage and deliver resources and services to unhoused riders. In addition, Metro has partnered with local homeless shelters to provide beds for the outreach teams to utilize. This is a report on the status and outcomes of Metro's homeless engagements throughout October, November, and December of 2024.

BACKGROUND

Metro continues to fund multidisciplinary teams (MDTs) who perform outreach to people experiencing homelessness on Metro's rail and bus systems. Metro began contracting eight MDTs through the LA County Department of Health Services (DHS) in 2017, expanding contracted outreach services to the current operating total of 24 MDTs. The initial eight teams were employed by the community agency People Assisting the Homeless (PATH); Metro now has five additional community agencies who deploy MDTs: Christ Centered Ministries (CCM), HOPICS, LA Family Housing, Union Station Homeless Services, and Helpline Youth Counseling.

In addition to MDT outreach, Metro currently funds a total of 45 interim housing beds through LA County DHS. These beds, located in Central Los Angeles and the San Fernando Valley, are reserved for MDTs to directly refer the people they serve. Metro MDTs also have access to 25 beds through partnerships with the LA County Chief Executive Office Homeless Initiative (LA CEO-HI) and the Los Angeles Homeless Services Agency (LAHSA). Most recently, the LA CEO-HI agreed to fund ten additional beds in Long Beach.

Metro has made notable progress in addressing homelessness on Metro's rail and busway systems

since 2017 through the expansion of MDT outreach, increased access to housing resources, and improved partnerships with City, County, and Community partners. Metro MDTs focus on engaging individuals and connecting them to housing and other services and are deployed across the entire rail and bus system seven days a week, with 24-hour coverage Monday through Friday. The six community agencies that deploy the 24 MDTs are based in different areas of LA County and are strategically assigned to segments of the Metro system located in their regions.

Since 2023, Metro has increased the number of interim housing resources from 25 to the current total of 80. This includes the most recent addition of ten beds in the city of Long Beach, through a collaboration with LA County and National Housing & Healthcare Advisors (NHHA). These beds provide occupants with access to a wide range of resources and programming that address a variety of client needs. All beds are required to provide 24-hour access, offering a vital resource to people experiencing homelessness during the late evening and early morning hours of Metro operation. Through the key partnerships between Metro and external stakeholders, staff plan for continued expansion of Metro-specific interim housing resources.

Since 2018, Metro MDTs have enrolled more than 20,000 individuals into the Homeless Management and Information System (HMIS), allowing them to gain access to homeless resources and services. The teams have successfully connected more than 5,000 people to interim housing and more than 1,500 people to permanent housing.

DISCUSSION

The following quarterly report provides an overview of the homeless response activities during October, November, and December of 2024, as well as year-to-date outcomes.

Operational Capacity and Deployment

Of the 24 teams currently funded under the active DHS contract (Letter of Agreement #8), 23 teams are deployed, with the remaining team in the process of recruitment. MDTs perform outreach on the rail and bus system seven days a week, with 24-hour coverage Monday through Friday. Outreach data is collected daily and analyzed to inform strategic deployment planning. Data analysis shows the highest levels of activity on the A, B, D, and E lines, which is where most teams are deployed using three strategic approaches: 1) co-deployment with Metro Ambassadors, Transit Security, and Law Enforcement partners at mutually agreed upon focus stations, 2) rover from station to station along designated lines within their respective deployment zones, and 3) nighttime deployment to End of Line stations Monday through Friday.

Impact

MDTs use a person-centered approach when performing outreach on the Metro system by focusing on building rapport and trust to meet individuals' needs. The primary goal is to connect people to interim or permanent housing. The multidisciplinary nature of these teams allows them to provide individuals with a variety of resources, from basic food, water & clothing to substance use and mental health interventions.

During the months of October, November, and December, the MDTs successfully enrolled 1,494 people into the Homeless Management Information System (HMIS). The total number of individuals

enrolled into HMIS during the current fiscal year is 3,154. The HOME department sets an annual housing connection goal, which includes the total number of individuals placed into either interim or permanent housing. Metro's total housing placement goal for this fiscal year is 1,800, which represents a 86% increase over last year's goal of 966 total placements. During the months of October, November and December, the MDTs enrolled 615 individuals into interim housing and connected 113 individuals to permanent housing. This amounts to a total of 728 housing placements during quarter two, which is a 9% increase over quarter one (666 placements). In total, the MDTs have connected 1,394 individuals to housing resources this fiscal year, which represents 77% of the annual goal. Figure 1 below shows the quarterly outcomes for the current fiscal year.

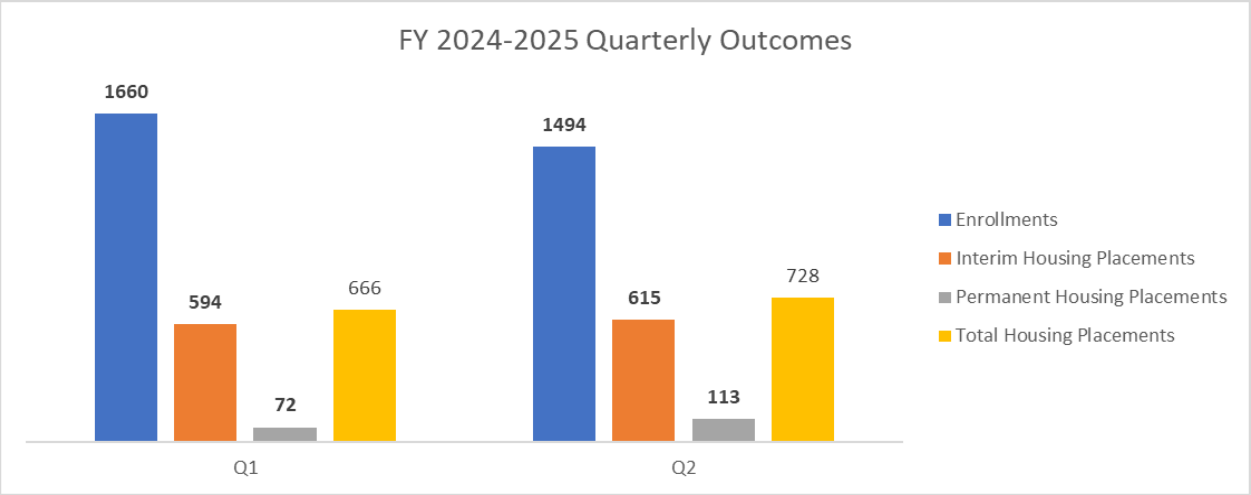


Figure 1: Metro MDT Fiscal Year Quarterly Outcomes

MDT staff have a variety of housing placement options for both interim and permanent housing. When making connections to housing, teams attempt to prioritize the needs and preferences of everyone they engage while balancing the types of housing resources available for referral. Successful alignment of these factors can be challenging, but MDTs have made strong impacts toward their housing placement goal. For the current fiscal year, 81% of non-permanent placements were traditional interim housing and crisis housing. For permanent placements, Metro MDTs have successfully reunited individuals with either their family or friends, which collectively account for 65% of the total placements. Figure 2 and Figure 3 below show the breakdown of interim and permanent placements from July 1 through December 31, 2024.

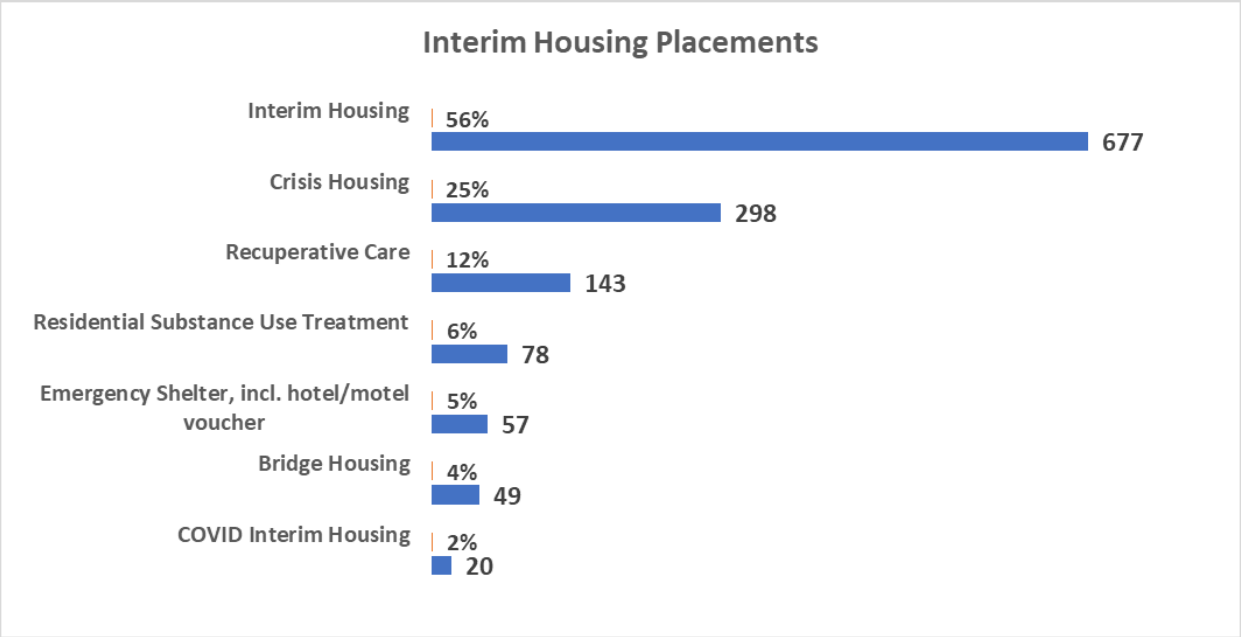


Figure 2: Dispersion of Interim Housing Placements

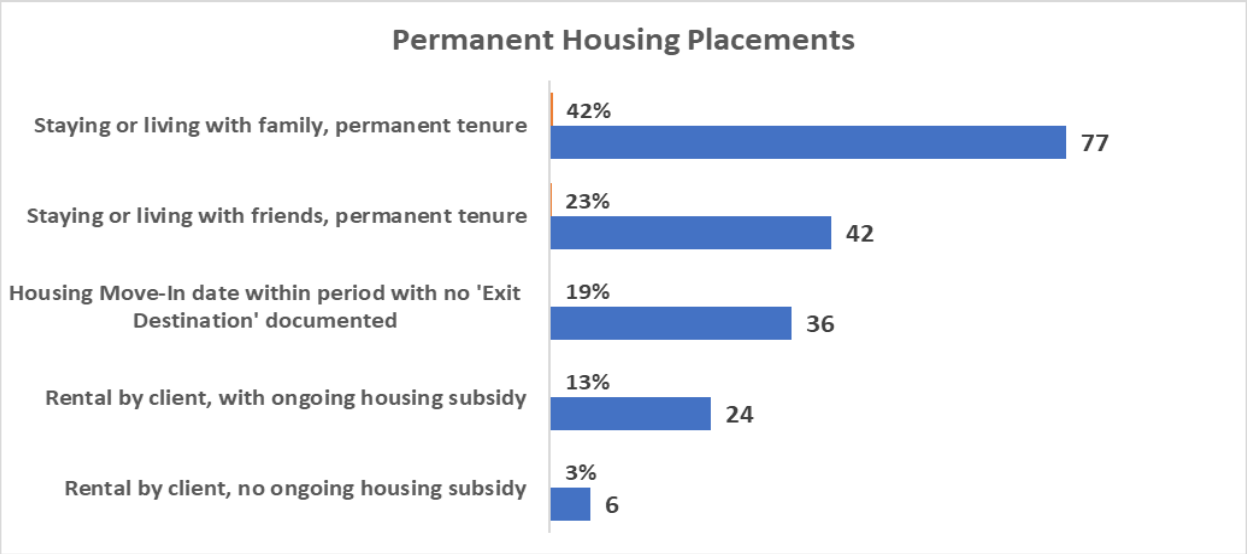


Figure 3: Dispersion of Permanent Housing Placements

A Note on Service Resistance

MDTs are actively outreaching across the rail and bus system seven days a week, with 24-hour coverage Monday through Friday. Despite their years of field experience and acute understanding of the population they serve, our partners continue to engage people who decline services or enrollment into programs. The term “service resistant” implies that people experiencing homelessness would rather remain in the streets than pursue shelter or permanent housing options, but the feedback received from a recent poll challenges this assumption.

Staff asked the six agencies who perform outreach on Metro's system to ask for the reasons why people might decline services, and to also provide their own first-hand experience with their offers of service being declined. The eight responses collected provide important insight into their perspective and their thoughts about homeless services:

Participant Responses:

1. People had only negative experiences w/ services or providers of services
2. Proximity of available services outside of the person's community
3. Overly strict rules or structural requirements to access services
4. Opposition to congregate settings, limitations on pets, or unable to cohabitate w/ partner/family, lack of privacy
5. Traumatic experiences
6. Overwhelming paperwork required for permanent housing, with lengthy placement times

Outreach Staff Responses:

7. Active drug use, preventing meaningful engagement
8. Actively experiencing mental illness, preventing meaningful engagement

All six agencies reported answers 1, 2, and 3 as the most common. The results highlight barriers to access and an inability for services to meet the unique needs of individuals. However, it is important to note that the types of shelter that MDTs have to offer are not always rejected; options such as hotels and motels are widely accepted due to their privacy and non-congregate nature. Additionally, Metro MDTs have been successfully placing individuals into interim and permanent housing year after year, demonstrating that many people's needs are being met with the resources teams have to offer. When selecting partnerships with interim housing providers, Metro focuses on locations and programs that practice low-barrier entry with a focus on safety, autonomy, and privacy.

EQUITY PLATFORM

Metro's efforts to address homelessness on the transit system through its homeless outreach program directly benefit unhoused individuals in LA County. Using a multi-layered deployment strategy that combines several departments, Metro strategically engages the most disenfranchised members of the community.

Metro's MDTs provide opportunities to receive a range of services, including connections to interim and permanent housing. Teams are deployed across the entire rail and busway system, allowing them to outreach to regions with dense populations of people experiencing homelessness. By connecting people with housing resources, mental health services, and other important interventions, the MDTs not only positively impact the overall goal of reducing homelessness across Los Angeles but also demonstrate Metro's investment in providing access to opportunities that people need to thrive.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT

reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

While this item does not directly encourage taking transit, sharing a ride, or using active transportation, it is a vital part of Metro operations, as it provides options for people who seek shelter on Metro helping improve riding conditions, cleanliness, and safety of the system. Because the Metro Board has adopted an agency-wide VMT Reduction Target, and this item supports the overall function of the agency, this item is consistent with the goals of reducing VMT.

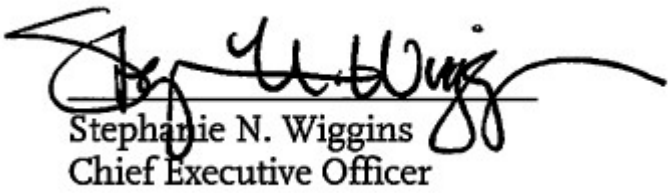
*Based on population Estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

NEXT STEPS

Staff will continue to report quarterly on homeless outreach activity, outcomes and strategic initiatives that address the presence of people experiencing homelessness on Metro's system.

Prepared by: Craig Joyce, Deputy Executive Officer Homeless Outreach & Strategic Initiatives, (213) 418-3008

Reviewed by: Nicole Englund, Chief of Staff, (213) 922-7950



Metro Homeless Outreach Management & Engagement (HOME)

Quarterly Update
February 2025

HOME Outreach Teams

- Began dedicated Metro homeless outreach in 2017
  - 3 outreach teams to serve the Red Line

- Current staffing and deployment
  - 24 total multidisciplinary teams (MDTs)
    - 23 active, 1 in recruitment
  - Deployed across entire rail & busway system seven days/week + 24hr coverage Mon - Fri

- MDTs strategically deployed based on regional knowledge and station data

- 80 Interim beds (all have 24/7 access)

Quarterly Performance

	Q1	Q2	Total
Enrollments	1660	1494	**3154**
Interim Housing Placements	594	615	**1209**
Permanent Housing Placements	72	113	**185**
Total Housing Placements	**666**	**728**	**1394**

Interim Housing Placement Types:

- Interim Housing (56%)
- Crisis Housing (25%)
- Recuperative Care (12%)
- Residential Substance Use Treatment (6%)
- Emergency Shelter incl. hotel/motel voucher (5%)

Permanent Housing Placement Types:

- Family Reunification (42%)
- Living w/ Friends, perm tenure (23%)
- Permanent placement, unspecified (19%)
- Rental w/ subsidy (13%)
- Rental without subsidy (3%)

Goals & Outcomes

Last Year
(Q1 + Q2)

Housing Goal: 966 placements

Total Placements: 805 (83%)
- Total Interim: 611
- Total Permanent: 194

2,429 New HMIS Enrollments

This Year
(Q1 + Q2)

Housing Goal: 1,800 placements

Total Placements: 1,394 (77%)
- Total Interim: 1,209
- Total Permanent: 135

3,154 New HMIS Enrollments

System Activity & Point In Time (PIT) Count

MONTHLY AVG	CURRENT FY	LAST FY	% CHANGE
PEH Engaged (Contact or Service Provided)	649	542	20%
PEH Enrolled in HMIS	526	454	16%
Interim Housing Placements	202	145	39%
Permanent Housing Placements	31	32	**3%**

PIT Count (January 2024)

Between 1,041 – 1,092 PEH counted on Metro property (stations, platforms, parking lots) excluding vehicles

PIT Count (February 20, 2025)

Count was rescheduled by HUD due to LA fires. All lines/stations/property will be counted in one night

Service Resistance

- MDTs engaged unhoused riders and inquired about reasons for declining services or enrollment in programs
- “Service Resistance implies that people would rather remain in the streets than pursue shelter or permanent housing – but feedback challenges this assumption
- Among the six MDT agency partners, respondents reported the following eight reasons:

Participant Responses

1. People had only negative experiences w/ services or service providers
2. Proximity of available services were outside of the person’s community
3. Overly strict rules or requirements to access services
4. Opposed to shelters due to congregate settings, anti-pet policies, lack of privacy, or unable to cohabitate w/ partner/family
5. Traumatic experiences
6. Overwhelming paperwork and lengthy placement times for permanent housing

Outreach Staff Responses

7. Active drug use, preventing meaningful engagement
8. Actively experiencing mental illness, preventing meaningful engagement

Thank You

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2025-0009, **File Type:** Informational Report **Agenda Number:** 27.

EXECUTIVE MANAGEMENT COMMITTEE
FEBRUARY 20, 2025

SUBJECT: FEDERAL AND STATE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE February 2025 Federal and State Legislative Report.

DISCUSSION

Executive Management Committee
Remarks Prepared by Raffi Haig Hamparian
Government Relations, Deputy Executive Officer: Federal Affairs

Chair Hahn and members of the Executive Management Committee, I am pleased to provide an update on several key federal matters of interest to our agency. This report was prepared on February 4, 2025, and will be updated, as appropriate, at the Executive Management Committee meeting on February 20, 2025. The status of relevant pending legislation is monitored on the Metro Government Relations Legislative Matrix <https://libraryarchives.metro.net/DB_Attachments/2%20-%20February%202025%20-%20LA%20Metro%20Legislative%20Matrix.docx.pdf>, which is updated monthly.

Incoming Trump Administration/U.S. Department of Transportation Nominee - Former Congressman Sean Duffy

As reported to the Board last month, President-elect Donald Trump nominated former Congressman Sean Duffy (R-WI) to serve as America's 20th Secretary of Transportation. Earlier this week, the Senate Commerce Committee voted by a margin of 28 to 0 to approve the nomination of Congressman Duffy. The full Senate moved to confirm Duffy's nomination on January 28, 2025 by a margin of 77 to 22.

The former Congressman represented Wisconsin's 7th Congressional District from 2011 to 2019. In the coming weeks, we expect President-elect Trump to nominate additional individuals for senior positions across the U.S. Department of Transportation. Given the scale and scope of our Board-approved 2025 Federal Legislative Program, we are in the process of engaging the new leaders at the USDOT as soon as possible.

Most recently, the U.S. Department of Transportation issued an Order entitled, “Ensuring Reliance Upon Sound Economic Analysis in Department of Transportation Policies, Programs, and Activities. According to the U.S. Department of Transportation, “This Order updates and resets the principles and standards underpinning the U.S. Department of Transportation policies, programs, and activities to mandate reliance on rigorous economic analysis and positive cost-benefit calculations and ensure that all DOT grants, loans, contracts, and DOT-supported or assisted State contracts bolster the American economy and benefit the American people.” Metro staff members are currently reviewing this document to understand what impact this Order will have on our agency and the flow of both discretionary and formula federal funding to our agency.

Southeast Gateway Line - Letter of No Prejudice

Chair Hahn, as you noted at our Board meeting on January 23, 2025, we were pleased that the Federal Transit Administration (FTA) cleared a $985 million Letter of No Prejudice for the Southeast Gateway Line. The FTA’s approval of a Letter of No Prejudice for the Southeast Gateway Line is a welcome step forward and a vote of confidence from the federal government for this project. As noted by the FTA, the LONP permits a Project Sponsor - in this case LA Metro - “to incur costs on construction of early critical activities on a project using non-federal resources with the understanding that the costs incurred after the LONP may be reimbursable as eligible expenses or may be eligible for credit toward local matching share if the project is approved for federal funding at a later date.” We look forward to working with the FTA and our local and federal stakeholders as the Southeast Gateway Line is poised to enter the Engineering Phase of the Capital Investment Grant Program.

U.S. Department of Transportation/2028 Olympic and Paralympic Games

Metro is squarely focused on securing the $200 million for mobility projects related to the 2028 Olympic and Paralympic Games that was embedded in the Senate’s Fiscal Year 2025 THUD Bill. Given the adoption of a continuing resolution by Congress last year and the fact that it expires on March 14, 2025, we anticipate a decision being made about these funds in the coming weeks. Staff will be working with key stakeholders, including but not limited to LA28, to ensure these funds are approved in the spending bill that Congress will adopt for the balance of Fiscal Year 2025. Staff will also work to advance our request that President Trump include $3.2 billion for mobility projects related to the 2028 Olympic and Paralympic Games in the President’s Fiscal Year 2026 White House Budget. This request was formally made by the Board in a letter shared with the President-elect on November 21, 2024.

Los Angeles County Congressional Delegation

As I noted last month in our report and consistent with our standard practice, our agency is actively setting up briefings with Members of Congress and/or their aides to see how our agency can continue to work cooperatively with federal officials representing Los Angeles County residents in Washington, DC. Over the past several weeks, staff has been collaborating with our federal partners on a variety of subjects, including with respect to federal grants, wildfire assistance, matters related to spending bills for both Fiscal Years 2025 and 2026, and the anticipated Fiscal Year 2026 Budget that will be issued by the White House this Spring.

Leaders of Federal Transportation-Related Committees

The 119th Congress, which began on January 3, 2025, includes a new roster of Chairs and Ranking members for key committees that have jurisdiction over transportation matters. Metro is actively reaching out to the staff for these leaders to offer our insight into a number of mobility matters and to offer our agency's assistance as they craft appropriations and authorization bills that will impact our agency. Metro has also begun extending invitations to key Members of Congress and their aides to visit LA County to learn more about our agency's leadership on a variety of matters.

Federal Transit Administration Capital Investment Grant Program

Late last year the agency provided several suggestions to relevant congressional committees as to how the FTA's Capital Investment Grant Program can be even more successful. As was outlined in the Board-approved 2025 Federal Legislative Program - we are in the process of crafting a broader document in 2025 that outlines our agency's priorities with respect to our nation's next surface transportation authorization bill. Our past work will inform this work on federal surface transportation authorization bills where Metro worked with then-Congresswoman Karen Bass to enact major reforms to federal Local Hire rules and with then-U.S. Senator Barbara Boxer on significant changes to the TIFIA low interest loan program to make this financial tool helpful for transit projects.

Transit Operator Safety

Consistent with our Board-approved 2025 Federal Legislative Program, Metro continues to maintain open lines of communication with the Los Angeles County Congressional Delegation on federal initiatives to enhance transit operator safety. The current surface transportation authorization measure - the Bipartisan Infrastructure Law - will be expiring in late 2026. This will provide our agency with an opportunity to work with a variety of stakeholders to authorize federal programs to further enhance transit operator safety.

Conclusion

Chair Hahn and members of the committee, I look forward to expanding on this report at the Executive Management Committee meeting slated for February 20, 2025, with any new developments that may occur over the next several weeks.

Executive Management Committee
Remarks Prepared by Madeleine Moore
Government Relations, Deputy Executive Officer: State Affairs

Chair Hahn and members of the Board, I am pleased to provide an update on several state matters of interest to our agency. This report was prepared on February 4, 2025, and will be updated, as appropriate, at the Executive Management Committee on February 20, 2025. The status of relevant pending legislation is monitored monthly on the Metro Government Relations Legislative Matrix

<https://libraryarchives.metro.net/DB_Attachments/2%20-%20February%202025%20-%20LA%20Metro%20Legislative%20Matrix.docx.pdf>, including legislation related to the most recent wildfires in our region.

Legislative Update

Bills continue to be introduced in the Senate and Assembly, ahead of the introduction deadline of February 21.

On January 23, SB 220 by Senator Ben Allen (D - Santa Monica) was introduced. As proposed, the bill states that it is the "intent of the Legislature to enact subsequent legislation to update and modernize the membership of the board of directors of the Los Angeles County Metropolitan Transportation Authority." Pursuant to the Board-approved 2025 State Legislative Program Goals from December 2024, Metro will respectfully oppose this legislation. A provision, which has been in the Legislative Program for over a decade under State goal #9, (Support Legislative & Regulatory Actions that Enhance & Protect Metro's Ability to Deliver Innovative Transportation Projects & Services in Los Angeles County) states that Metro will "Oppose legislation that would seek to restructure the Metro Board of Directors."

There is an existing mechanism in place in state law to update the membership of Metro's Board of Directors. The Legislative Counsel's digest for SB 220 cites the provision under California Public Utilities Code § 130051 (a), which states that "If the number of members of the Los Angeles County Board of Supervisors is increased, the authority shall, within 60 days of the increase, submit a plan to the Legislature for revising the composition of the authority." This provision in statute provides a process by which changes to the composition of the Metro Board of Directors can be made. The submission of a plan to the Legislature allows for an agency-led orderly consideration of changes to the structure to the Board in anticipation of the increase in the number of County Supervisors after the 2032 election. Government Relations has conveyed Metro's opposition to the Senator's office.

Sponsored Legislation

On January 14, Senator Scott Wiener (D - San Francisco) introduced SB 71, a transit-related CEQA bill that builds upon previous legislation that the Senator has sponsored, including SB 922 from 2022, a bill that Metro co-sponsored. Metro has signed on as one of the co-sponsors of SB 71, along with the California Transit Association (sponsor), SPUR, and the Bay Area Council. The bill would extend indefinitely CEQA exemptions for active transportation and public transportation infrastructure projects established in the Senator's previous legislation, SB 288 (2020) and further amended in SB 922 to include zero-emission rail projects. SB 71 removes the SB 922 sunset date and clarifies that transit infrastructure maintenance projects, bus shelters and lighting, and shuttle and ferry service and terminal projects also eligible for the exemption. This co-sponsorship stems from Metro's Board-adopted policy from the 2025 State Legislative Program under goal #9 (Support Legislative & Regulatory Actions that Enhance & Protect Metro's Ability to Deliver Innovative Transportation Projects & Services in Los Angeles County), which includes a provision that Metro will "Continue to advocate for California Environmental Quality Act (CEQA) reforms for and specified exemptions for transportation projects with continued collaboration of statewide stakeholders and organizations." This bill can be first heard on or after February 14.

Budget Update

On January 10, Governor Newsom formally released his January budget proposal for Fiscal Year 2025-26, following a topline preview of the budget earlier in the week. California Director of Finance Joe Stepenshaw held a media briefing to provide details of the state budget proposal, as the Governor was spending time in Los Angeles responding to the widespread wildfires in the County. Director Stepenshaw highlighted that due to the state's efforts in recent fiscal years to maintain fiscal stability amid fluctuating revenues, the state's financial condition has stabilized. Additionally, the budget document states that "The economy has generally performed better than projected in the 2024 Budget Act, leading to an upgrade to the forecast in the near term and modest upward revisions in the long term. The stronger-than-anticipated performance of the economy, stock market, and cash receipts, combined with an improved economic outlook, have all contributed to the upgraded revenue forecast, with General Fund revenues before accounting for transfers and tax policy proposals projected to be higher by approximately $16.5 billion in the three-year budget window." The overall state budget for this year is proposed at $322.3 billion.

With regard to transportation, the budget maintains the whole of the transportation package included in recent budget years. This includes $15.4 billion for the following:

• $7.7 billion for high-priority transit and rail infrastructure projects, such as Metro's A Line Foothill Extension and the Southeast Gateway Line. A portion of these funds can also be used to support transit operations.
• $4.2 billion Proposition 1A funds for the High-Speed Rail Authority.
• $1.2 billion for projects that improve goods movement on rail and roadways at port terminals, including railyard expansions, new bridges, and zero-emission modernization projects.
• $1.1 billion for Active Transportation Program projects, the Reconnecting Communities Highways to Boulevards Pilot program, and climate adaptation projects.
• $1.1 billion for the Zero Emission Transit Capital Program.
• $150 million for grade separation projects.

In addition to this, the budget summary makes mention of the state's cap-and-trade program, which is due to expire in 2030. The budget summary suggests that the state may choose to act to extend the cap-and-trade program before 2030 in order to ensure more certainty in the program and attract more, stable investment.

On January 23, the Governor joined local Los Angeles County lawmakers and the Speaker of the Assembly, Robert Rivas, in a press conference to sign $2.5 billion in wildfire aid for the County. This funding was provided through the existing special session of the Legislature. The special session legislation, ABx1-4 by Assemblymember Jesse Gabriel (D - Encino) and SBx1-3 by Senator Scott Wiener (D - San Francisco), provides funding to expedite response and recovery efforts, streamline rebuilding efforts and help rebuild school facilities affected by the fires.

The next steps in the budget process are hearings on the proposal in the Senate and Assembly Budget Committees, followed by the May Revision to the proposal. Staff will continue to keep the

Board apprised as the process continues.

LA County Legislative Delegation Coordination

Government Relations staff continue to prioritize new member engagement and updating state Senate and Assembly offices on projects and programs relevant to their districts.

Senate Budget Hearing

On February 6, Metro staff were invited to provide testimony at the Senate Budget and Fiscal Review Committee informational hearing on transit in California. A summary of this hearing will be available at the Executive Management Committee meeting.

EQUITY PLATFORM

Government Relations will continue to work with the Office of Civil Rights, Racial Equity, and Inclusion in reviewing legislation introduced in Sacramento and Washington, DC, to address any equity issues in proposed bills and the budget process.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

While this item does not directly encourage taking transit, sharing a ride, or using active transportation, it is a vital part of Metro operations, as all Government Relations activities support Board priorities. Because the Metro Board has adopted an agency-wide VMT Reduction Target, and this item supports the overall function of the agency, this item is consistent with the goals of reducing VMT.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

Prepared by: Michael Turner, Executive Officer, Government Relations, (213) 922-2122
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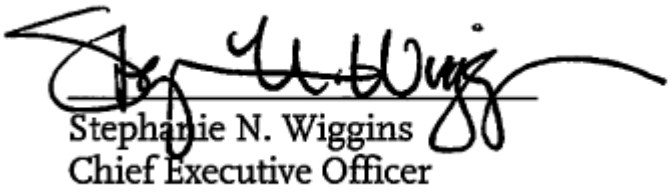
Reviewed by: Nicole Englund, Chief of Staff, (213) 922-7950



Stephanie N. Wiggins
Chief Executive Officer

Government Relations
Federal and State Affairs Update

Executive Management Committee
February 20, 2025

Metro

Federal Affairs Update

- **Incoming Trump Administration/USDOT Secretary Congressman Sean Duffy and USDOT Order**
- **Southeast Gateway Line – Letter of No Prejudice**
- **U.S. Department of Transportation/2028 Olympic and Paralympic Games**
- **Los Angeles County Congressional Delegation**
- **Leaders of Federal Transportation-Related Committees**
- **Federal Transit Administration Capital Investment Grant Program**
- **Transit Operator Safety**
- **Federal Transportation Grants**

Metro

State Affairs Update

- **Legislative Update:**
  - **Sponsored Bills**
  - **Other Relevant Legislation**
- **Senate Budget Hearing**
- **Fiscal Year 25-26: Budget Process and Fiscal Outlook**

Metro