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April 19, 2022

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ELECTRIC VEHICLE ROADMAP IMPLEMENTATION PROGRAM PROGRESS UPDATE

Overview

The Board of Supervisors (Board) has demonstrated a commitment to sustainability highlighted by Board actions including: January 13, 2021 (5), Framework for our Future: Actions to Achieve Bold Climate Action at the County of San Diego; and July 14, 2021 (3) Framework for our Future: Developing a Regional Sustainability Plan (Regional Decarbonization Framework). These Board actions prioritize sustainability, zero carbon emissions, and equity and climate justice in the region. The County of San Diego (County) has also advanced this commitment through the County's Strategic Plan under the Sustainability and Community initiatives, which identify the goals to "actively combat climate change through innovative or proven policies, green jobs, sustainable facility construction or maintenance and hazard mitigation" and "facilitate meaningful conversations, shared programming, grant opportunities, or other opportunities to maximize resources through community partnerships to benefit the region" as County priorities.

On October 16, 2019 (2), the Board adopted the Electric Vehicle Roadmap (EV Roadmap), which included strategies to increase electric vehicle (EV) ownership and use, install charging infrastructure, and identify grant opportunities. As part of the EV Roadmap, the Board directed staff to report back annually on implementation efforts. The first annual report was submitted to the Board in December 2020. It provided an update on EV Roadmap implementation from the date of adoption to the end of Fiscal Year (FY) 2019-2020.

This memorandum summarizes implementation progress through the second year of the initiative (FY 2020-2021) and is organized around the EV Roadmap's six goals. In addition, where implementation progress has occurred beyond the close of FY 2020-2021, this report provides updates to reflect progress through the end of calendar year 2021. Following a narrative of implementation progress for each goal is a detailed table summarizing completed and anticipated implementation actions/priorities. Additional supporting information is included in the two appendices. They include a list of existing and proposed EV charging stations at County facilities (Appendix A) and maps showing EV charging stations for County fleet use and public use at County facilities (Appendix B).

The County pursued several initiatives to advance the EV Roadmap goals and recommendations. In support of the County's efforts to reduce greenhouse gas (GHG) emissions through electrification of the transportation sector, the County launched in April 2021 the public-facing EV Roadmap website (<https://sandiegocounty.gov/ev-roadmap>), which provides a centralized online location for tracking activities related to EV Roadmap implementation. This website is designed to also provide easy access to supporting County sites, including the Climate Action Plan webpage and the recently launched Electric Vehicle Consumer Guide webpage (discussed in further detail under Goal 5). Through the end of 2021, the EV Roadmap website has been viewed 634 times. Additionally, an internal County EV Working Group, consisting of various County departments, regularly coordinates EV Roadmap implementation activities. The participating departments include the Department of Parks and Recreation (DPR), Planning and Development Services (PDS), Department of General Services (DGS), Agriculture, Weights and Measures (AWM), and San Diego County Library (SDCL). Implementation efforts reflected within this memorandum are associated with work conducted by departments across the County enterprise.

County Operations Implementation Status (Goals 1, 2, and 3)

Three EV Roadmap goals focus on increasing the number of EVs in the County fleet, increasing the number of charging stations at County facilities and increasing the number of employees who own and drive EVs. These efforts aid in GHG emissions reductions from County operations. In support of these goals for County operations, DGS has prepared and is implementing the County of San Diego Facility Operations Electric Vehicle Roadmap (Operations EV Implementation Plan). The Operations EV Implementation Plan, last updated in August 2019, outlines implementation strategies and tracking metrics to guide DGS's transition of the County's fleet to EVs.

Goal 1: Further Reduce the County's Fleet of Gas-Powered Vehicles

Targeted Outcome	Increase the number of EVs in the County's fleet to 250 vehicles by 2025 and 501 vehicles by 2027.
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FLEET MANAGEMENT

DGS manages the County's vehicle fleet and implements the County's Green Fleet Action Plan, which guides the transition of the over 4,300 County vehicles¹ and off-road equipment to cleaner fuels. The Green Fleet Action Plan identifies goals and strategies to transition the County's fleet to EVs, and builds on the efforts outlined in the Operations EV Implementation Plan. DGS is working with a consultant, the Center for Sustainable Energy (CSE), to update the Green Fleet Action Plan to align with State goals² and set milestones for the transition of the County's fleet to EVs. DGS anticipates completing this update by mid-2022. DGS will also consider how future updates to the Green Fleet Action Plan can support transitioning medium- and heavy-duty fleet vehicles to clean fuels.

DGS created and filled a new, full-time Fleet Coordinator position in July 2021. This dedicated position manages the EV fleet across all County departments, identifies where EV charging infrastructure for the County's fleet should be located, collaborates with vendors to ensure the EV chargers are operational, coordinates with departments to transition gasoline-powered fleet vehicles to more efficient and clean-fuel vehicles, leads the implementation of the Green Fleet Action Plan, and supports implementation of the EV Roadmap.

FLEET EVs AND INFRASTRUCTURE

In alignment with the EV Roadmap, DGS had planned to place 50 to 125 EVs in service by 2020. The COVID-19 pandemic resulted in a shutdown of vehicle manufacturer plants across the nation and ongoing issues with chip manufacturers continue to constrain the supply of EVs. At the end of December 2020, the County had 66 EVs in service.

In summer 2021, DGS conducted a series of five-year forecast strategy meetings with every County department providing the number of vehicles in their inventory, highlighting those that were EV capable, sharing whether there would be charging infrastructure for the vehicles, explaining if the vehicles were underutilized³, and forecasting expenditures for a transition to EV. Amidst production uncertainty, supply chain delays, and market volatility, due to the economic conditions of the COVID-19 pandemic, the County added 11 new EVs to the County fleet, bringing its total number to 77 by December 2021. In a successful partnership with County departments, additionally there are 75 confirmed EV orders for FY 2021-2022 with anticipated delivery between April 2022 and March 2023. The addition of these vehicles would increase the

¹ County vehicle fleet includes light-duty vehicles (e.g., sedans, sport utility vehicles, vans, compact trucks, motorcycles, and ambulances), medium-/heavy-duty vehicles (e.g., flatbed trucks, dump trucks, boom trucks, buses, fire trucks, and trailers), and off-road equipment (e.g., all-terrain vehicles, forklifts, graders, rollers, sweepers, tractors, and dozers).

² Executive Order N-79-20 mandates that all new passenger vehicles sold in the state be electric or zero emissions by 2035.

³ Underutilized vehicles are defined in Board Policy H-1 as those driven less than 10,000 miles annually or having less than one trip per day average use.

total number of EVs in the County fleet to 152 vehicles. Supply chain issues are expected to continue through 2022 and then begin to improve. DGS continues to monitor manufacturer production schedules and dealership cancellations closely to identify additional opportunities to increase the number of EVs in the County fleet.

In preparation for increasing the number of new EV fleet vehicles, DGS is currently constructing Phase 1 (FY 2020-2021) and Phase 2 (FY 2021-2022) of the EV charging infrastructure, including 119 new Level II⁴ EV charging stations at the County Operations Center. This project is expected to be completed in summer 2022. Installation of these 119 EV charging stations will bring the total number of EV chargers installed to 203 in 2022. Appendix A includes a summary of the existing and proposed EV charging stations at County facilities that support the County's EV fleet. At the start of FY 2022-2023, funding for Phase 3 of the Operations EV Implementation Plan will be provided (\$910,000), which will support the construction of another 43 chargers at the County Operational Center.

SDCL has initiated the process of retiring two existing diesel-fueled buses that currently operate as the Library's Bookmobiles or mobile libraries. SDCL will purchase five all-electric mobile outreach vans to provide expanded mobile library services to residents and students throughout the region. SDCL will purchase and begin operating two all-electric mobile outreach vans this year, with the purchase and operation of an additional three all-electric vans within two years. These "EV Mobile Outreach platforms" will be served by existing and planned EV charging stations at the Ramona, Borrego, Fallbrook, and Julian libraries.

FLEET EFFICIENCY

In 2021, DGS evaluated fleet vehicle usage to identify potential inefficiencies in the number of fleet vehicles. Inefficiencies were identified if vehicles were underutilized or if County-business could be conducted with fewer total vehicles available. As of June 2020, the County has reduced 114 underutilized vehicles from its fleet. By June 2021, 63 more underutilized vehicles were turned in by departments. In response to observed fleet vehicle needs during the COVID-19 pandemic, the Land Use and Environment Group (LUEG) and the Health and Human Services Agency (HHSA) developed Memorandums of Agreement to share vehicles. This vehicle sharing agreement allowed both agencies to reduce incurred costs from vehicle rentals or purchases to conduct COVID-19 pandemic—related activities such as inspections and health visits.

⁴ Level II chargers are defined as requiring a 240-volt outlet and can provide a full charge to a mid-size passenger vehicle in approximately 3-8 hours. Level II chargers are used for both home and charging on-the-go at public locations.

Goal 1: Further Reduce the County’s Fleet of Gas-Powered Vehicles		
Targeted Outcome: Increase the number of EVs in the County’s fleet to 501 vehicles by 2027		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
1-A: Amend Board policies F-22, “Lease of Real Property for County Use”, H-1, “Fleet Management and Internal Service Fund”, and H-2, “Fleet Vehicle and Mobile Equipment Acquisition Policy”, in the October 2019 sunset review.	Completed in October 2019.	N/A
1-B: Convert 250 County fleet gas-powered vehicles to EVs by 2025 and install necessary EV charging infrastructure.	<ul style="list-style-type: none"> • 77 EVs available for use in County fleet. • 75 EVs on order with anticipated delivery between April 2022 and March 2023. • 84 EV charging stations installed for fleet use. 	<ul style="list-style-type: none"> • Receive delivery of 15 EVs for fleet in FY 2021-2022. • Install 119 additional EV fleet charging stations in FY 2021-2022 at County Operations Center. • Retire the two diesel-fueled Library Bookmobile buses and replace them with five all-electric mobile outreach vans in FY 2021-2022.
1-C: Convert an additional 251 County fleet gas-powered vehicles to EVs for a total of 501 by 2027 and install necessary EV charging infrastructure.		
1-D: Keep pace with technological trends, track the costs and benefits of fleet conversion, and update the Green Fleet Action Plan no later than 2025 to set goals for medium- and heavy-duty fleet vehicle conversions. Consider additional categories of light-duty vehicles for conversion, and purchase EVs as feasible.	<ul style="list-style-type: none"> • DGS began update of Green Fleet Action Plan to align with Executive Order N-79-20, which mandates that all new passenger vehicles sold in CA be electric or zero emissions by 2035. • Hired a full-time Fleet Coordinator in DGS. 	<ul style="list-style-type: none"> • Complete Green Fleet Action Plan update to develop milestones in alignment with Executive Order N-79-20 in FY 2021-2022. • Evaluate future Green Fleet Action Plan updates to begin conversion of medium- to heavy-duty fleet vehicles to EV.

Goal 2: Accelerate Installation of EV Charging Stations at Public Locations in County Facilities

Targeted Outcome	Contribute to the regional EV charging network by installing 2,040 Level II charging stations at County facilities and throughout the unincorporated area by 2028.
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Implementation of EV Roadmap Goal 2 this year included continuing efforts to install publicly available EV charging stations at County facilities and other public locations in the unincorporated area. Through adoption of the EV Roadmap, the Board provided direction on priority locations for EV chargers, which is detailed in the section below titled EV Infrastructure in Communities.

EV INFRASTRUCTURE AT COUNTY FACILITIES

EV Roadmap Recommendation 2-B identifies that the County would fund the installation of 63 publicly accessible Level II charging stations at seven County facilities. In 2021, six new public EV stations were brought online, increasing the total for County public charging to 45. Another 27 stations are in design or under construction and expected to be operational in 2022, and 33 more stations are in development as part of existing capital projects and expected to come online as those projects are completed in 2023. A total of 105 public chargers, including 85 Level II chargers and 20 Direct Current Fast Chargers (DCFC)⁵ are expected to be online by the end of 2023. Appendix A includes a summary of the existing and proposed public EV charging stations at County facilities. Appendix B includes a map of these public EV charging stations.

The County has leveraged charging station installation through several programs including:

- San Diego Gas and Electric (SDG&E) Parks Pilot Program⁶, which funds charger installation at city or county parks in underserved communities in the San Diego region,
- SDG&E Power Your Drive, which funds chargers at workplaces and multi-unit dwellings in the San Diego region, and
- California Electric Vehicle Infrastructure Project (CALeVIP), which offers incentives for the purchase and installation of chargers at publicly accessible sites throughout California.

EV INFRASTRUCTURE IN COMMUNITIES

PDS began the preparation of EV Roadmap Recommendation 2-C to develop an EV Charger Site Assessment to identify priority locations for public EV charging stations in unincorporated communities. The Site Assessment will provide an evaluation of existing EV infrastructure in the unincorporated area, summarize the existing policies and programs that support EV infrastructure development, identify opportunity sites for EV charging station installations, and develop a phasing and implementation plan to achieve EV infrastructure deployment to meet future demand and Board objectives. The analysis will also evaluate consistency of the EV

⁵ DCFC chargers provide the fastest charging rate currently available. DCFC chargers can provide a full charge to a mid-size passenger vehicle in approximately 30 minutes. These chargers are typically found at commercial and other public locations.

⁶ It was reported in the 2020 EV Roadmap Annual Report that two Level II chargers and two DCFC chargers would be installed at Lindo Lake County Park. Since the submittal of that annual report, the identified funding for charger installation increased, allowing for an additional two Level II chargers.

Roadmap Goal 2 with State goals identified in Executive Order N-79-20, which requires the sale of all new passenger vehicles to be zero emissions by 2035. Through internal and external outreach and engagement, locations and siting prioritization will be informed and guided by stakeholder input.

The Site Assessment implementation plan will also identify prioritization criteria for the location of future EV charging stations to ensure equitable access to charging infrastructure. Location criteria will look to support installation of charging infrastructure in communities of need (e.g., Environmental Justice communities as defined by the County's Environmental Justice Element, low-income and disadvantaged communities as defined by Assembly Bill 1550 (Gomez, 2016) and Senate Bill 535 (De Leon, 2012), other vulnerable communities as defined by future analysis) and specific development types (e.g., existing multi-unit dwellings).

Supportive of efforts to install public EV charging stations, PDS led the La Presa Community Transportation Needs Assessment. This project was implemented through grant funding (\$49,515) from the California Climate Investments' Clean Mobility Options Voucher Program. PDS worked with two existing low-income housing developments⁷ and the broader community in La Presa to understand community transportation gaps and identify potential clean mobility solutions to reduce GHG emissions from vehicle use.

In 2021, the focus of work included broad outreach with the distribution of over 3,000 surveys to residents in the La Presa/Spring Valley area, two virtual workshops for community members, and two presentations to the Spring Valley Community Planning Group to understand the existing conditions of the community relative to transportation needs. During the second half of 2021, staff hosted one in-person workshop at the Spring Valley Library and three virtual workshops open to all residents of the area. To increase language accessibility for non-English speaking stakeholders, a Spanish interpreter was available at all workshops and interviews, and all written materials were translated into Spanish. Staff also conducted interviews and administered surveys at community events, and prepared a final Community Transportation Needs Assessment report that was submitted to and approved by the Mobility Options Voucher Program administrator⁸. In April 2022, staff will present report findings for clean mobility investment in the community to the Spring Valley Community Planning Group, and evaluate future voucher program funding opportunities based on these findings. Initial findings indicate that residents have an interest in clean transportation options such as carsharing, on-demand transit services, and ridesharing. Future grant applications would support implementation of a clean mobility project (e.g., installation of new EV charging stations at public locations or implementation of an EV carsharing program) in the La Presa community, which is identified as

⁷ Per grant requirements, the two low-income communities were defined as deed-restricted affordable housing facilities within AB 1550-designated low-income communities with at least five units and at least 80 percent of the property residents' incomes at or below 60 percent of the area median income. Affordable housing facilities identified for this effort included the Spring Valley Apartments and Spring Villa Apartments.

⁸ The *La Presa and Spring Valley Community Transportation Needs Assessment* final report was published in January 2022 and can be viewed on the project website:
<https://www.sandiegocounty.gov/content/sdc/sustainability/projects/clean-mobility-options-la-presa.html>

an Environmental Justice community in the County's Environmental Justice Element of the General Plan, as adopted on July 14, 2021 (1).

Goal 2: Accelerate Installation of EV Charging Stations at Public Locations in County Facilities and in the Unincorporated County		
Targeted Outcome: Contribute to the regional EV charging network by installing 2,040 Level II charging stations at County facilities and throughout the unincorporated area by 2028		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
2-A: Amend Board Policy G-15, “Design Standards for County Facilities” to require all new County facilities to include charging infrastructure for public and employee use.	Completed in October 2019.	N/A
2-B: Fund the installation of 63 publicly accessible Level II chargers at seven County facilities for public and employee use by 2021, which would increase the number of public charging infrastructure at County facilities to 100 chargers.	<ul style="list-style-type: none"> • 45 publicly accessible EV chargers available at County facilities. 	<ul style="list-style-type: none"> • Install an additional 60 publicly accessible EV chargers at County facilities, including 27 in FY 2021-2022. <ul style="list-style-type: none"> ○ Complete installation of EV charging stations funded through CALeVIP. ○ Complete installation of EV charging stations at County parks funded through SDG&E Parks Pilot Program.
2-C: Complete an EV charger site assessment study and develop the EV Charger Installation Program for unincorporated communities by FY 2022-2023. Return to the Board for funding and install 2,040 Level II chargers by FY 2027-2028.	<ul style="list-style-type: none"> • Completed procurement of project contractor and initiated EV Charger Site Assessment project. • Continued internal County EV Working Group to coordinate ongoing efforts and explore new opportunities for EV charger installation at County facilities in priority, underserved communities⁹. 	<ul style="list-style-type: none"> • Complete EV Charger Site Assessment project and develop the EV Charger Installation Program for funding.

⁹ Priority communities include Environmental Justice communities as defined by the County’s Environmental Justice Element, low-income and disadvantaged communities as defined by Assembly Bill 1550 (Gomez, 2016) and Senate Bill 535 (De Leon, 2012), other vulnerable communities as defined by future analysis, and specific development types for which additional public agency support may be needed.

Goal 3: Promote and Incentivize County Employee EV Ownership

Targeted Outcome	Increase County employee EV ownership and use to reduce employee commute emissions.
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EMPLOYEE TELECOMMUTING

In September 2020, the County developed a tracking tool to monitor commute vehicle miles traveled (VMT) reductions resulting from increased employee telecommuting and alternative work schedules. The tool automates the summary of total hours logged as telework hours and number of avoided vehicle miles for over 18,000 employees and is reported on a daily, monthly, and annual basis. Reducing employee work commuting in 2021 (i.e., between January and December 2021) resulted in the avoidance of 46,663,301 vehicle miles. This avoidance of over 46 million vehicle miles is equal to a reduction of an estimated 13,554 metric tons of carbon dioxide equivalent (MTCO_{2e})¹⁰.

In response to the COVID-19 pandemic, the County updated the Government Without Walls (GWOW) plan. This update identifies strategies to support long-term telecommuting and reduce employee commutes to County facilities. In the near-term, the County will continue to track employee telecommute hours and monitor the vehicle miles avoided through telecommute programs and policies.

REDUCING GHGS FROM EMPLOYEE COMMUTES

This year, PDS began planning for the development of an enterprise-wide Employee Commute Program. This program will result in the development of strategies and monitoring actions to reduce the VMT associated with employee commutes and reduce GHG emissions. Strategies will include exploration of incentives to increase the number of employees who drive EVs and encouragement to use alternative transportation modes such as buses, shuttles, and carpools. This is consistent with the 2018 Climate Action Plan Measure T-2.3 goal to reduce the number of miles County employees commute by 20 percent by 2030. The program will continue to be developed through the next year and will include efforts to partner with banks, credit unions, and dealerships to extend lending and pricing benefits for the purchase of electric vehicles, employee incentives to commute using electric vehicles (e.g., purchasing rebates), and educational efforts to inform employees of these partnerships and incentives.

Anticipated near-term implementation includes developing and implementing a survey to collect information on current employee EV ownership, baseline data that describes the level of employee participation in incentive programs (e.g., transit subsidies, carpooling subsidies), outreach and engagement to employees to identify desirable incentives, development of educational events to foster increased participation by County employees (e.g., workplace charging challenges or “ride-and-drive” collaborations through the iCommute SANDAG program or other with regional organizations), and regular monitoring activities of incentive program participation. The program will be developed in coordination with the Climate Action Plan Update

¹⁰ GHG emissions equivalency estimated based on data used in the 2018 CAP to convert LDT1 vehicle miles to MTCO_{2e} for the 2020 forecast year.

(CAP Update) to ensure efforts are consistent with future GHG reduction measures to reduce employee commute VMT.

Goal 3: Promote and Incentivize County Employee EV Ownership		
Targeted Outcome: Increase County employee EV ownership and use to reduce employee commute emissions		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
Promote and incentivize County employee EV use by developing partnerships with banks, credit unions, dealerships to extend lending and pricing benefits.	<ul style="list-style-type: none"> • Deployed reporting system for tracking reductions in vehicle commute miles by employees in September 2020. • Updated Government Without Walls to promote increase in enterprise-wide telecommuting in FY 2020-21. • Initiated development of the Employee Commute Reduction Program to increase employee EV ownership and promote alternative modes of transportation. • Avoided an estimated 13,554 metric tons of carbon dioxide equivalent (MTCO₂e)* during FY 2020-2021 from telecommuting. 	<ul style="list-style-type: none"> • Implement an employee survey to collect information on current employee EV ownership rates and potential benefits that may incentivize purchasing an EV (Spring 2022) • Establish options for employee incentives to purchase EVs (late-2022). • Establish an alternative commute program for employees and create educational/training programs for alternative commutes (late-2022).
Notes: * Reducing employee work commuting during FY 2020-2021 resulted in the avoidance of 46,663,301 vehicle miles. GHG emissions equivalency based on data used in the 2018 CAP inventory and forecast to convert vehicle miles to MTCO ₂ e.		

Unincorporated Area Implementation Status (Goals 4, 5, and 6)

Three EV Roadmap goals focus on increasing the availability of charging infrastructure in the unincorporated area for public use by leveraging County land use authority, permitting processes, and the County’s ability to coordinate with regional partners. These goals are also supported by the EV Charger Site Assessment Study (discussed under Goal 2), which identifies priority locations for public chargers in communities and will guide the development of strategies, programs, and policies to implement Goals 4 through 6. These goals will contribute to a reduction in GHG emissions from the transportation sector.

Goal 4: Incentivize and/or Require EV Charging Infrastructure in New and Existing Private Multi-Family Residential and/or Non-Residential Development

Targeted Outcome	Increase charging station installations in new and existing private development.
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PERMIT STREAMLINING

The County’s streamlined EV charger permitting process was recognized by the State as one of the first jurisdictions in the region to be consistent with Assembly Bill 1236 (2015) which requires the creation of expedited permitting for EV charging stations throughout the state. The streamlined permitting process encourages EV charging infrastructure development by reducing project costs to homeowners and developers by providing checklists (i.e., a step-by-step guide to walk users through the EV permitting process) that allow for ministerial review (i.e., a process for permit approval involving little or no discretionary judgement). In October 2020, PDS staff presented at the CALeVIP and San Diego Association of Governments (SANDAG) workshop, “Streamlining Permit Processing for Electrical Vehicle Charging Stations,” and provided guidance to agencies statewide on best practices to streamline and encourage EV charging station installation in private development. As part of this workshop, CALeVIP and SANDAG recognized the County for “Permitting Best Practice” and as a model across the state.

In addition, on December 9, 2020 (5) the Board provided direction to develop a new Renewable Energy Fee Waiver Pilot Program, which waives permitting fees for EV charging stations to incentivize EV charger installations in residential development. This program, which began on January 9, 2021, waives permitting fees for residential EV charging stations and electric panel upgrades. PDS maintains records of permitted EV charging stations at residential and non-residential properties in the unincorporated area. PDS has hired a consultant to examine the effectiveness of the incentive (i.e., waiving permitting fees) and identify other potential actions to promote renewable energy adoption.

CODE REQUIREMENTS AND ADVANCEMENT

The Board adopted the Solar and EV Ready Ordinance on April 8, 2015 (10). This ordinance amended the County’s building code to promote solar photovoltaic and EV charging systems for single-family residential developments. The Ordinance requires new single-family residential development to install conduit to accommodate future installation of an EV charging station and a roof-mounted solar photovoltaic system. This requirement is above and beyond the current requirements of the 2019 California Building Code Title 24 Standards (CALGreen).

The State's Energy Efficiency Standards (Energy Code) and CALGreen are updated every three years. Adoption of the next iterations of both standards are anticipated in FY 2022-2023 and would take effect on January 1, 2023. The County will continue to monitor and evaluate changing State regulations regarding EV charging in private development and identify potential next steps, along with new or updated policies that would allow the County to go beyond State requirements.

INFRASTRUCTURE TESTING AND MONITORING

To support consumer confidence and fair business competition, AWM will test new EV charging stations to ensure accurate measurement and delivery of electric charge, and charging conduit efficiency. AWM began registration of commercial EV charging stations for inspection in November 2021. These State-mandated inspections ensure that all public EV chargers dispensing alternating current (Level 1 and 2 chargers) used for commercial purposes (i.e., not home-based chargers or public chargers that dispense electricity at no cost to the consumer) installed after January 2021 meet State standards. AWM will begin performing similar inspections for DCFCs when State regulations for public charging stations take effect on January 1, 2023.

Goal 4: Incentivize and/or Require EV Charging Infrastructure in New and Existing Private Multi-Family Residential and/or Non-Residential Development		
Targeted Outcome: Increase charging station installations in new and existing private development		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
Prepare a cost/benefit analysis of options to incentivize and/or require EV charger installations in new and/or retrofits of multi-family and non-residential development in the unincorporated area.	<ul style="list-style-type: none"> • Deployed EV charger permit streamlining consistent with AB 1236 (2015)*. • Continued evaluation of incentive programs for EV charging. • Implemented Renewable Energy Fee Waiver Pilot Program. • Developed program to test EV charging stations to ensure accurate measurement and delivery of electric charge, and charging conduit efficiency. 	<ul style="list-style-type: none"> • Identify and analyze building code amendment options for future updates. • Evaluate Renewable Energy Fee Waiver Pilot Program. • Coordinate with CAP Update to include EV charging station incentives.
Notes: * Recognized by the State as one of the first jurisdictions in the region to have this streamlined permitting. Other jurisdictions recognized in the region include the cities of Escondido, Del Mar, and National City.		

Goal 5: Fund EV Expert/Consumer Advocate as a Regional Resource

Targeted Outcome	Increase EV ownership and charging station installations through education, outreach, regional collaboration, and incentives.
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EV CONSUMER GUIDE

The County launched the regional EV Consumer Guide website (<https://sandiegocounty.gov/ev-consumerguide>) offering general and technical online education and support on EV-related topics to consumers in the San Diego region at the end of June 2021. This initiative completed the one recommendation for EV Roadmap Goal 5 implementation by providing a consolidated source of consumer-friendly information on the benefits and costs of EV ownership, available vehicle and charger purchase incentives, charger options and installation procedures, a fuel cost comparison calculator, and access to a vehicle search and comparison tool. To improve the user experience and accessibility, the website provides information for a diverse range of users (i.e., low-income residents, residents of multi-family developments, large families) and utilizes enhanced website design components to facilitate translation of all website content. Through the end of 2021, the website has been viewed 7,341 times.

Staff coordinated with LUEG on the launch of the EV Consumer Guide website to release an article through the County News Center¹¹, an exclusive article in the San Diego Union-Tribune¹², and promotion through County social media. In addition to these outreach activities, the launch of the EV Consumer Guide website was paired with the release of the EV Roadmap information and resource website.

Staff will continue to monitor website traffic on a quarterly basis to evaluate the website's reach and effectiveness and identify opportunities to expand or modify the website based on feedback or user experience. Staff will also continue to research and review website content to ensure the content is up to date with the latest EV technology, new and pre-owned EV market trends, County policies and priorities, and legislation.

¹¹ County Launches Electric Vehicle Consumer Guide. <https://www.countynewscenter.com/county-launches-electric-vehicle-consumer-guide/>

¹² Shopping for an electric car? San Diego County wants to help. <https://www.sandiegouniontribune.com/news/politics/story/2021-07-06/electric-vehicle-roadmap>

Goal 5: Fund EV Expert/Consumer Advocate as a Regional Resource		
Targeted Outcome: Increase EV ownership and charging station installations through education, outreach, regional collaboration, and incentives		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
Identify regional partners and cost sharing opportunities to fund a regional “EV Expert/Consumer Advocate” that would provide no-cost consultations for residents, agencies, and businesses to learn more about available incentives, technologies, and charger installation procedures on an ongoing basis.	<ul style="list-style-type: none"> Built and launched the County’s EV Consumer Guide website, a County-led website to provide general and technical support for residents and businesses in July 2021. 	<ul style="list-style-type: none"> Review EV Consumer Guide website content to keep up to date with latest advancements and technologies. (Ongoing) Evaluate EV Consumer Guide effectiveness and identify opportunities to expand/modify to satisfy regional demand. (Ongoing)

Goal 6: Collaborate with Regional Partners to Support Public and Private Fleet Electrification

Targeted Outcome	Increase EV use in regional light-, medium-, and heavy-duty fleets.
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ACCELERATE TO ZERO EMISSIONS REGIONAL COLLABORATION

Staff continued to participate as a Core Team member in the regional Accelerate to Zero Emissions (A2Z) Collaboration this year. The purpose of the A2Z Collaboration is to develop a vision and implement a San Diego Regional EV Strategy that will accelerate investment in ZEVs and EV infrastructure to reduce air pollution and GHG emissions and combat climate change. In addition to County staff, the Core Team includes staff from SANDAG, SDG&E, the City of San Diego, and the San Diego County Air Pollution Control District (APCD).

In July 2021, the A2Z Collaboration published a Regional EV Gap Analysis¹³ that identifies the projected demand for ZEV infrastructure that will be needed to support regionwide growth in clean vehicles. In support of the gap analysis development, PDS staff attended weekly A2Z coordination meetings with Core Team members and a project consultant to provide general oversight, review and provide comments on draft documents, participate in stakeholder outreach events, and review outreach interviews and surveys. Staff also participated in agenda preparation and attended monthly A2Z Steering Committee meetings to provide input on strategic planning and the decision-making process to shape the development of the gap analysis.

On July 29, 2021, the A2Z Collaboration marked the public launch of the Regional EV Gap Analysis at a press conference, with County participation including Vice Chair Nora Vargas and PDS staff, and with the release of the official A2Z website (<https://a2zsandiego.com/>).

To begin the second phase of the A2Z Collaboration's work, PDS staff coordinated with SANDAG to prepare a scope of work for the development of a Regional EV Strategy. This Strategy will identify guiding principles and strategies to overcome the gaps and barriers identified in the Regional EV Gap Analysis. Gaps and barriers identified in this report include existing perceptions of EV costs, limited availability of medium-/heavy-duty or used EVs, lack of existing EV charging infrastructure, and difficulty finding consolidated informational sources to support educated and confident purchasing. Staff will continue to participate on the A2Z Collaboration throughout the preparation of the Regional EV Strategy to evaluate, provide input, and ensure alignment with the CAP Update.

Additionally, LUEG staff have been added to the A2Z Core Team to ensure strategies and implementation efforts identified in the Regional EV Strategy are aligned with the transportation electrification strategies identified in the County's Regional Decarbonization Framework (RDF) technical analysis conducted by University of California, San Diego. The draft studies in the RDF are out for public review and comment through May 31, 2022, and will lead to the development of implementation pathways. They are posted on the RDF engagement website

¹³ San Diego Regional Electric Vehicle Gap Analysis. <http://a2zsandiego.com/static/zero/regional-gap-analysis.html>

(<https://engage.sandiegocounty.gov/rdf>). Preparation of the Regional EV Strategy, including stakeholder outreach, will occur through 2022 with anticipated publication in early 2023. This development timeline will align with the County's development of Regional Decarbonization Framework¹⁴ strategies and continued implementation of EV Roadmap goals. Staff will continue these development and implementation efforts in alignment with A2Z Collaboration and regional transportation electrification visions.

SUPPORT OF REGIONAL EFFORTS

The County submitted a letter of support for two EV-related grant opportunities for regional partners. First, the County supported SANDAG's application to receive the California Energy Commission's Medium- and Heavy-Duty (MD/HD) ZEV Infrastructure Blueprint for Planning Grant to develop a regional strategy for MD/HD conversions to electric. In August 2021, SANDAG received notification that this grant will be awarded. As the grant activities progress, County staff will coordinate with SANDAG to provide input on development of the MD/HD infrastructure blueprint.

Second, PDS coordinated with District 1 to submit a letter signed by Vice Chair Vargas in support of Southwestern Community College District's (SCCD) application to the California Department of Justice Automobile Emissions Research and Technology Fund for the development and implementation of a hybrid/EV workforce development training program. In August 2021, PDS received notice that SCCD's application was not awarded.

¹⁴ The County's Regional Decarbonization Framework informs policy making in regional, county, and city governments towards reducing GHG emissions in the San Diego region. It seeks to chart science-based pathways towards deep decarbonization for the region that can be implemented in a feasible and expeditious timeline.

Goal 6: Collaborate with Regional Partners to Support Public and Private Fleet Electrification		
Targeted Outcome: Increase EV use in regional light-, medium-, and heavy-duty fleets		
EV Roadmap Recommendation	Progress as of December 31, 2021	Expected Next Steps
Develop public and private regional partnerships to provide fleet electrification technical support to convert large regional fleets such as delivery services, rideshare, school districts, and transportation network companies to EV on an ongoing basis.	<ul style="list-style-type: none"> • Participated as a Core Team member in the A2Z Collaboration* and completed Regional EV Needs Assessment (initiated June 2020, ongoing). • Submitted a letter of support for SANDAG's application to the CEC's Medium- and Heavy-Duty Zero Emissions Vehicle Infrastructure Blueprint Planning Grant to develop a regional strategy to convert vehicles to EV (September 2020) • Staff participated as a panelist in the CALeVIP and SANDAG webinar presented statewide to highlight ongoing efforts to support EV charging systems as a "streamlining best practice." (October 2020) • Coordination with LUEG Regional Decarbonization Framework effort. (Ongoing) 	<ul style="list-style-type: none"> • Continue participation as a Core Team member in the A2Z Collaboration and develop a Regional EV Strategy. (Ongoing, anticipated completion in early-2023) • Review and participate in the development of the Regional Decarbonization Framework. (Ongoing) • Lead advancement of regional permit streamlining. (Ongoing)
Notes: * Accelerate to Zero Emissions Collaboration Core Team consists of San Diego County, SANDAG, SDG&E, San Diego County Air Pollution Control District, and City of San Diego.		

Next Steps

Key actions that are anticipated in 2022 include:

- Fund and install additional 119 EV charging stations at County facilities.
- Update the Green Fleet Action Plan.
- Prepare the final EV Charger Site Assessment document and draft Implementation Plan. Begin related public outreach to identify community desires for EV charging stations and future charging needs and locations.
- Submit a grant application to fund a clean mobility project identified through the La Presa Community Transportation Needs Assessment.
- Develop and begin the implementation of programs to encourage EV ownership by County employees.
- Participate as a Core Team member of the A2Z Collaboration and prepare a Regional EV Strategy and perform community outreach.
- Evaluate EV charger parking incentive programs or other mechanisms that go beyond State requires for installation of EV chargers in private developments.
- Continue tracking and monitoring funding opportunities through the federal Infrastructure Investment and Jobs Act and other funding sources.

Please contact Dahvia Lynch (Dahvia.Lynch@sdcounty.ca.gov), Director of PDS, or Marko Medved (Marko.Medved@sdcounty.ca.gov), Director of DGS, if you have further questions or to request further information.

Respectfully,

DAHVIA LYNCH, Director
Planning and Development Services

Cc: Sarah Aghassi, Deputy Chief Administrative Officer, Land Use and Environment Group
Andrew Potter, Clerk of the Board of Supervisors
Marko Medved, Director, Department of General Services
Susan Brazeau, Director, Department of Human Resources
Migell Acosta, Director, San Diego County Library
Brian Albright, Director, Department of Parks and Recreation
Jeff Moneda, Director, Department of Public Works
Ha Dang, Agricultural Commissioner/Sealer, Department of Agriculture, Weights and Measures

Appendices

- A. EV Charging Station Summary:** A table summarizing all EV charging stations installed and in progress at County owned and operated facilities. This will include a summary of existing chargers installed, and in progress and planned EV charger installations.
- B. EV Charging Station Maps:** Maps of all EV charging stations installed in public locations in the unincorporated area and at County facilities.

Public Electric Vehicle Charging Sites at County Facilities and in the Unincorporated Area

EVCS Sites	Site Address	# EVCS Ports		Owner	Date In Service
		L2	DCFC		
Completed					
County Administrative Center	1600 Pacific Hwy, San Diego, 92101	4	2	CP	2014
County Operations Center, Parking Structure A	5515 Overland Avenue, San Diego, 92123	10	0	CP	2015
South Bay Assessor/Recorder/County Clerk Office	590 Third Avenue, Chula Vista, 91910	4	0	CP	2015
Fallbrook Library	124 South Mission Road, Fallbrook, 92028	2	0	CP	2015
Ramona Library	1275 Main Street, Ramona, 92065	2	0	CP	2015
San Diego County Air Pollution Control District	10124 Old Grove Road, San Diego, 92131	1	0	CP	2015
Health Service Complex	3851 Rosecrans Street, San Diego, 92110	2	0	CP	2015
4S Ranch Community Center	16118 4S Ranch Pkwy, San Diego, 92127	2	0	CP	2015
North County Regional Center	325 South Melrose Drive, Vista, 92083	4	0	CP	2015
Cedar Kettner Parking Structure	735 West Cedar Street, San Diego, 92101	4	0	CP	2017
Santa Ysabel Nature Center	22135 Highway 79, Santa Ysabel, 92070	2	0	CoSD	2019
Sweetwater Place Park	10691 Sweetwater Park Place, Spring Valley, 91978	1	0	COSD	2021
North Coastal Live Well Health Center	1701 Mission Avenue	5	0	CoSD	2021
	Total Completed EVCS	43	2		

In Process					
Borrego Springs Library	2580 Country Club Road, Borrego Springs, 92004	2	0	CoSD	2022
East County Assessor/Recorder/County Clerk Office	10144 Mission Gorge Road, Santee, 92071	9	0	CoSD	2022
Ohio Street New Probation Office	3977 Ohio Street, San Diego, 92104	2	0	CoSD	2022
Julian Library	1850 Highway 78, Julian, 92036	0	4	CSG	2022
County Operations Center, Parking Lot	5500 Overland Avenue, San Diego, 92123	0	4	CSG	2022
Lakeside Library	9839 Vine Street, Lakeside, 92040	2	0	CoSD	2022
McClellan-Palomar Airport	2192 Palomar Airport Road, Carlsbad 92008	0	4	CSG	2022
Lakeside Community Center	9841 Vine Street, Lakeside, 92040	4	2	CoSD	2023
Southeastern Live Well Center	415 Euclid Avenue, San Diego, 92114	4	4	CoSD for L2 CSG for DCFC	2023
Juvenile Justice Campus	2801 Meadow Lark Drive, San Diego, 92123	19	0	CoSD	2023
Total In-Process EVCS		42	18		

Publicly Available EVCS Summary			
	# EVCS Ports		
	L2	DCFC	Total
Total Completed EVCS	43	2	45
Total In-Process EVCS	42	18	60
TOTAL BY TYPE	85	20	105

Notes

COSD = County of San Diego; CP = ChargePoint; CSG = Carbon Solutions Group; DCFC = direct current fast charging; EVCS = electric vehicle charging station; L2 = Level 2 charging stations; TBD = to be determined

Fleet Charging Sites at County Facilities

EVCS Sites	Site Address	# EVCS Ports		Owner	Date In Service
		L2	DCFC		
Completed					
South Bay Regional Center	500 Third Avenue, Chula Vista, 91910	12	0	SDGE	2017
North County Regional Center	325 S Melrose Dr, Vista, 92081	10	0	SDGE	2017
Juvenile Justice Complez	2901 Meadowlark, San Diego, 92123	10	0	SDGE	2017
County Operations Center, Medical Examiner	5570 Overland Ave, San Diego, 92123	10	0	SDGE	2017
County Operations Center, DGS Fleet Garage	5610 Overland Ave, San Diego, 92123	12	0	CoSD	2017
County Operations Center, Mobile Solar	9301 Hazard Way, San Diego, 92123	2	0	CoSD	2017
Health Services Complex	3851 Rosecrans st, San Diego, 92110	10	0	SDGE	2017
San Diego County Air Pollution Control District	10124 Old Grove Rd, San Diego, 92131	10	0	SDGE	2017
Sheriff Headquarters	9621 Ridgehaven Ct, San Diego, 92123	8	0	SDGE	2017
	Total Completed EVCS	84	0		

In Process					
County Operations Center, Parking Structure A	5515 Overland Avenue, San Diego, 92123	119	0	CoSD	2022
Southeastern Live Well Center	415 Euclid Avenue, San Diego, 92114	16	0	CoSD	2023
Total In-Process EVCS		135	0		

Fleet EVCS Summary			
	# EVCS Ports		
	L2	DCFC	Total
Total Completed EVCS	84	0	84
Total In-Process EVCS	135	0	135
Total by Type	219	0	219

Notes

CoSD = County of San Diego; DCFC = direct current fast charger; EVCS = electric vehicle charging station; L2 = Level 2 charging station; SDGE = San Diego Gas and Electric

Appendix B - Electric Vehicle Charging Stations for County Fleet



