APPENDIX E Implementation Details

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Table E-1 provides implementation details for the measures and actions discussed in Chapter 3. The "Performance Objectives" included in the table embody the specific objectives of the 2045 Los Angeles County Climate Action Plan (2045 CAP) for each measure and action. These performance objectives represent guideposts for the successful implementation of each measure and the 2045 CAP as a whole. However, they are not specific mandates. As the 2045 CAP is implemented and adapted over time, many of these performance objectives may change. Greenhouse gas emissions reductions for 18 of the identified measures were quantified at the measure level based on these performance objectives, and monitoring will also occur at the measure level. Performance objectives included for implementing actions identify intermediary steps that may be taken to meet the performance objective of the corresponding overarching measure. Tracking metrics are intended to identify potential data that may be used to analyze GHG emission reductions and may be revised administratively. The table also identifies funding for all quantified measures. Additional future funding sources will need to be identified for non-quantified measures.

Table E-1: Greenhouse Gas Strategy, Measure, and Action Implementation Details

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
Strategy	I: Decarbonize the Energy Supply							
ES1 ^o	Develop a Sunset Strategy for All Oil and Gas Operations: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.			 Reduce oil and gas operations: 40% by 2030 60% by 2035 80% by 2045 Examine all active and abandoned oil wells for fugitive emissions of GHGs. Conduct carbon removal feasibility study. 				
ES1.1	Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. Develop an ordinance.	CSO, DRP	PW, ISD, cities, California Geologic Energy Management Division; DPH		 Number of well sites decommissioned and remediated Emissions reductions achieved through well decommissioning 	Short term (2024–2030)	\$-\$\$	County General Fund
ES1.2	Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data.	CSO	DRP, PW, ISD, cities, California Geologic Energy Management Division; DPH		 Number of oil wells examined Amount of GHGs emitted (estimated or measured) 	Short term (2024–2030)	\$\$\$	County General Fund
ES1.3	Develop a carbon removal strategy that considers direct air capture and carbon capture and sequestration (CCS).	CSO	PW, DRP, ISD, CARB CCS Program		 Number of CCS systems constructed GHG emissions removed annually 	Medium term (2030– 2035)	\$-\$\$\$\$	Federal CIFIA Program, Infrastructure Investment and Jobs Act of 2021, SB 905, SB 1137, AB 1757, and SB 27
ES2 [°] (Core)	Procure Zero-Carbon Electricity: Supplying unincorporated Los Angeles County's power demand with zero-carbon electricity is critical to achieving significant GHG emissions reductions. The Clean Power Alliance (CPA) is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California.			 Participate in CPA's Green Power option, SCE's Green Rate option, or other available 100% zero carbon electricity service: 100% municipal participation by 2025. 96% community participation by 2030 (approximately 4% opt-out rate). 				
ES2.1	Transition all County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service.	CSO, ISD	CPA, SCE, LA100		 CPA 100% Green Power enrollment for County accounts SCE's 100% Green Rate enrollment for County accounts Enrollment in other available 100% renewable electricity service Electricity supplied by CPA 	Short term (2024–2030)	\$	Funded; Federal Inflation Reduction Act CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, CPUC California Solar Initiative, CPUC Self-Generation Incentive Program, Low-Income Solar and Wind Investment Tax Credit, DOE Renewable Energy and Efficiency Energy grants

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
ES2.2	Complete enrollment of the community in CPA's 100% Green Power or SCE's Green Rate option.	CSO	CPA, SCE, LA100		 CPA 100% Green Power participation and/or opt-out rate Electricity supplied by CPA (MWh) SCE 100% Green Rate participation and/or opt-out rate Electricity supplied by SCE (MWh) 	Short term (2024–2030)	\$\$	CPA Powershare Program, Federal Inflation Reduction Act CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, CPUC California Solar Initiative, CPUC Self-Generation Incentive Program, Low-Income Solar and Wind Investment Tax Credit, DOE Renewable Energy and Efficiency Energy grants
ES3 ^Q	Increase Renewable Energy Production: Expand local solar power generation on existing and new development and for County projects.			Install rooftop solar PV on all existing single- family residential homes and multifamily residential buildings: 20% by 2030 25% by 2035 35% by 2045 Install rooftop solar PV on all existing commercial buildings: 15% by 2030 22% by 2035 32% by 2045 Install rooftop solar PV on all new multifamily residential buildings: 80% by 2030 85% by 2035 95% by 2045 Install rooftop solar PV on all new commercial buildings: 40% by 2030 50% by 2035 70% by 2035 70% by 2045 Install 20,000 kW of solar PV at County facilities by 2030. Install rooftop solar PV at all affordable housing developments.				
ES3.1	Require rooftop solar PV for all new development.	PW	DRP, CSO		 Number of rooftop solar PV installations for all new development Total kW solar capacity installed in community 	Short term; implement ordinance immediately (2024)	\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
ES3.2	Install rooftop solar PV at existing buildings.	PW	DRP, CSO		 Number of rooftop solar PV installations for existing multifamily residential buildings and existing commercial buildings Total kW solar capacity installed in community 	Short term (2024–2030)	\$-\$\$\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees
ES3.3	Identify and install solar PV systems at existing viable County facilities and properties. ^M	ISD	PW, CSO, SCE, CPA		Total MW solar capacity installed at County facilities	Short term (2024–2030)	\$\$\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees
ES3.4	Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. ^M	ISD	PW, CSO, SCE, CPA		Total community-shared MW solar capacity installed	Medium term (2030– 2035)	\$\$\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees
ES3.5	Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings.	DRP, CSO, LACDA	PW, SCE, CPA		 Number of rooftop solar PV installations Total MW solar capacity installed 	Short term; implement ordinance immediately (2024)	\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
ES3.6	Streamline and prioritize permitting for solar and battery storage projects.	DRP	CSO, PW		 Number of solar PV installations Total MW solar capacity installed Number of battery storage installations Total MW battery capacity installed 	Short term (2024–2030)	\$	Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees
ES4	Increase Energy Resilience: Expand energy storage and microgrids throughout the community and for County operations.			 Achieve community electricity storage capacity equal to the community-wide 24-hour average usage by 2035/2045. Achieve community electricity generation capacity equal to the communitywide 24-hour average usage by 2035/2045. Establish a community resilience hub program to equip community-serving County facilities (e.g., libraries, rec centers, senior centers). Provide solar and battery systems sufficient to support emergency cooling and other emergency functions. Partner with the local community for implementation. Locate at least one hub in each County district, with a focus on vulnerable populations. Install microgrids based on a feasibility study. Obtain a grant and establish a program to support an energy efficiency and assurance program for facilities that are large energy users and support critical community functions. 				
ES4.1	Develop a program to deploy community resilience hubs at scale.	ISD, DRP	PW, CSO		 Amount of generation/storage capacity per hub Number of community resilience hubs Number of people who can be supported at each hub during emergencies (daytime and nighttime) 	Short to medium term (2024–2035)	\$-\$\$	Leverage bulk purchasing for portfolio-scale implementation
ES4.2	Invest in energy storage and microgrids at critical County facilities through CPA's Power Ready Program. ^M	ISD	PW, CSO		 kW of energy storage capacity installed at County facilities Number and capacity of microgrids established 	Short to medium term (2024–2035)	\$\$\$	Power purchase agreement
ES4.3	Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency.	CSO	ISD, PW, SCE, CPA			Medium to long term (2035–2045)	\$\$	SCE, CEC, CPUC

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
ES4.4	Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management, peak shaving, and load shifting to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants.	ISD	CSO, PW, DRP, SCE, CPA		Number of microgrids installed	Short to medium term (2024–2035)	\$	Leverage bulk purchasing for portfolio-scale implementation; power purchase agreements
ES4.5	Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services.	ISD	CSO, PW, DRP, SCE, CPA, SoCalRen		 Number of efficiency projects implemented Number of energy resilience projects implemented 	Short to medium term (2024–2035)	\$\$	State or federal grant (CEC, DOE)
ES5	Establish GHG Requirements for New Development: Develop and implement requirements to ensure that new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030, 2035, and 2045. These requirements include applicant completion of a project review consistency checklist for non-CEQA-exempt new development requiring discretionary approvals to demonstrate consistency with the 2045 CAP. To demonstrate consistency with the 2045 CAP, all projects that do not screen out of the 2045 CAP consistency review process must implement either (1) all feasible applicable checklist measures or (2) for infeasible checklist measures, alternative project emission reduction measures. The project review checklist will be used in one of two ways: (1) For projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis; or (2) for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emissions reduction measures have nevertheless been implemented, either as project features or as GHG mitigation measures. Projects that do not implement all feasible applicable checklist measures or alternative project emissions reduction measures or alternative project emissions reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per CEQA Guidelines Appendix G Section VII. They may also be inconsistent with the General Plan because the CAP is a component of the Air Quality Element. In addition, the County will assess the feasibility of developing a GHG offsets/credit program to create a pathway toward achieving the aspirational 2045 goal of carbon neutrality.			 Require all new development that does not require a General Plan amendment shall be consistent with the 2045 CAP. Develop reach codes, ordinances, and conditions of approval as needed. 				
ES5.1	Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.	DRP, CSO	PW, ISD		Number and type of projects performing consistency review	Short term (2024–2030)	\$-\$\$	County General Fund
ES5.2	Implement the 2045 CAP consistency review checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions.	DRP	PW		Number and type of projects performing consistency review	Short term (2024–2030)	\$	County General Fund
ES5.3	Evaluate a program for reducing GHG emissions for new development that require General Plan amendments.	DRP	CSO, ISD		Number and type of projects performing consistency review	Short term (2024–2030)	\$	County General Fund

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
ES5.4	Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.	DRP	PW		 Dollars invested into Offsite GHG Reduction Program Number of off-site projects implemented 	Short term (2024–2030)	\$	Project developers
					Quantity of GHG emission reductions achieved			
Strategy 2	2: Increase Densities and Diversity of Land Uses Near Transit	·				•	•	
T1 ^Q	Increase Density Near High-Quality Transit Areas: Increase housing opportunities that are affordable and near transit, to reduce VMT.			Implement and complete Housing Element Update rezoning programs to achieve the minimum densities.				
				 Achieve a minimum of 20 dwelling units (DU) per acre (maximum of 30–150 DU per acre) for HQTAs. 				
				 Locate a majority of residential and employment centers in unincorporated Los Angeles County within 1 mile of an HQTA. 				
				Achieve a 27% increase in DUs within HQTAs.				
T1.1	Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure.	DRP	SCAG, Metro		Number and percent of increase in DUs in HQTAs	Housing Element time frame (2021–2029)	\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T1.2	Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing.	DRP	Cities, Metro, and other transit agencies, SCAG		 Number and percent increase in DUs within HQTA Total acres of commercial or industrial zones in HQTAs that can support jobs 	Short term (2024–2030)	\$\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T2 °	Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths.			 By 2030, achieve a job density of 300 jobs per acre. For communities with an imbalance of jobs/housing (±20%), develop community plans to identify and quantify strategies for bringing that imbalance below 20%. 				
T2.1	Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT.	DRP	PW		Comparison between existing and future statistics for employment and housing density and totals within each area	Housing Element time frame (2021–029)	\$\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
					 Number and % increase in DUs in HQTAs Total acres of commercial or 			
					I otal acres of commercial of industrial zones in HQTAs that can support jobs			

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
Strategy	3: Reduce Single-Occupancy Vehicle Trips							
T3°	Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.			 Increase bikeway miles 300% by 2035. Implement the County's Bicycle Master Plan. Complete updates to the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. 				
T3.1	Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes.	PW	DRP, Metro, transit providers		Miles of bikeways by route type	Long term (2035–2045)	\$\$\$\$\$	Road reconstruction funds, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T3.2	Implement and regularly update the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans.	DPH, PW	DRP, Metro, transit providers		Miles of bicycle sidewalk improved or added	Long term (2035–2045)	\$\$\$\$	County General Fund, Bikeway funds, Supervisor TIP funds, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
ТЗ.З	Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program.	DRP, PW	Metro, transit providers, Parks, DPH, DRP		Number and location of shade and lighting projects planned and completed	Medium term (2030– 2035)	\$\$\$	Partial funding secured; additional funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
Τ4 ^α	Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT.			 By 2030, double transit service hours from 560,000 to 1.12 million. By 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares. By 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service. 				
T4.1	Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles.	PW	ISD; transit providers including Metro, Foothill Transit, Long Beach Transit, and Montebello Bus Lines LA		 Size of area served Number of employees and residents served Service frequency and headways 	Medium term (2030– 2035)	\$\$\$\$	New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.2	Collaborate with Metro and other transit providers to install bus- only lanes and/or signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate.	PW	Metro, transit agencies, other cities		 Increase in service frequencies Decrease in headways Increase in residents/employees served Number and percentage of bus-only lanes installed on transit routes Travel time reliability 	Long term (2035–2045)	\$\$\$\$	New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.3	Collaborate with Metro and other transit providers to develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit.	PW	Metro, transit agencies, CSO, DPH			Medium term (2030– 2035)	\$\$	New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T4.4	Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership.	PW	Metro, transit agencies, CSO, DRP, LASD		Maintenance or increase in level of maintenance funds	Short term (2024–2030)	\$\$	New funds needed, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.5	Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires future development projects to incorporate measures such as subsidized transit passes and car share.	PW	Metro, transit agencies, CSO, DRP		 Mode share, commute trips, and parking occupancy at the tenant and building level Number of employers participating in TDM program 	Short to medium term (2024–2035)	\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.6	Offer free and/or discounted transit passes for students, youth, seniors, people with disabilities, and low-income populations.	PW	Metro, transit agencies, CSO, DRP		 Number of free transit passes issued Number of discounted transit passes issued 	Short term (2024–2030)	\$\$	Proposition A Local Return Transit fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.7	Expand and improve the County's Telecommuting Policy, using data gathered through the alternative work program.	ISD, DHR	CSO, DRP, PW, SCAG		 Number of employers participating in telecommuting policies Number of employees actively telecommuting 	Short term (2024–2030)	\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.8	Establish temporary and permanent car-free areas.	DRP	PW, cities		Number and location of car- free areas in unincorporated Los Angeles County for each target year	Long term (2035–2045)	\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.9	Develop a VMT bank or exchange program.	PW	DRP, CSO		Implementation of exchange program for use in project development	Short to medium term (2024–2035)	\$\$\$	County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants
T4.10	Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission.	CSO	Metro, transit agencies, DRP, PW		 Number of ZEV buses Number of ZEV shuttles Total ZEV percentage of bus and shuttle fleet 	Short to medium term (2024–2035)	\$\$\$	Caltrans grant, CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCE Charge Ready Transit Bus Pilot and Charge Ready Transport, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit
Τ5	Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market-price parking can help reduce VMT.			 Reduce parking stipulations to reduce parking supply and encourage transit use. Unbundle parking costs to reflect cost of parking. Implement parking pricing to encourage "park-once" behavior. 				

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T5.1	Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking.	DRP	PW		 Percent change in parking supply Number of new and expanded parking benefit districts Mode shift surveys in areas/ buildings with reduced/ unbundled/priced parking 	Short term (2024–2030)	\$\$-\$\$\$	LEAP Grant
Strategy 4	: Institutionalize Low-Carbon Transportation		1		1	1		
T6 ^Q (Core)	Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: Increase unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles. Set targets for reducing total gasoline and diesel vehicle fuel sales.			Increase the fleetwide percentage of light- duty vehicles in unincorporated Los Angeles County that are ZEVs to:* 30% by 2030 50% by 2035 90% by 2045 Increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to: * 68% by 2030 100% by 2035 Install the following total number of new public and private shared EVCSs: 37,000 by 2030 74,000 by 2035 140,000 by 2045 Install the following total number of new EVCSs at County facilities and properties: 5,000 by 2030 10,000 by 2035 25,000 by 2045				
T6.1	Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure.	CSO	DRP, PW, ISD		 Number of ZEVs registered and number of non-ZEVs registered Total sales of gasoline and diesel fuel in unincorporated Los Angeles County Total number of gas stations decommissioned Specific tracking metrics for ZEV infrastructure and ZEV adoption to be identified in the plan 	Short term (2024–2025)	\$	TBD

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T6.2	Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County.	CSO, ISD	PW		Number, location, and availability of EVCSs	Short to long term (2024– 2045)	\$\$\$	CEC CALeVIP and EVSE Rebates, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund
T6.3	Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces.	DRP	PW		Number, location, and availability of EVCSs	Short term (2024–2030)	\$	SCE Charge Ready Program, EVSE rebates, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund
T6.4	Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities.	ISD	Fire, LASD, PW, Parks, Beaches and Harbors		Number, location, and availability of EVCSs	Short to long term (2024– 2045)	\$\$\$	CEC CALeVIP EVSE rebate, SCAQMD Alternative Fuel Vehicle and Fueling Infrastructure Grants, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, CARB Clean Fuel Reward and CALeVIP, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund
T6.5	Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction.	ISD, PW	SCE, CSO, DRP, ISD			Short term (2024–2030)	\$	SCE Charge Ready Program, CARB Greenhouse Gas Reduction Fund

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T6.6	Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options.	CSO	DRP, PW, ISD		 Number of e-scooters/e-bikes available Number of neighborhood EVs available Number of residents served Number of rides Average ride distance 	Medium term (2030– 2035)	\$	CARB Clean Mobility Options Voucher Pilot Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CPUC statewide transportation electrification infrastructure rebate program, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund
T6.7	Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources.	ISD	PW		 NG and hydrogen truck registration data (or fuel consumption data) Quantity of biomethane and biogas sold and consumed in unincorporated Los Angeles County Percent of the community truck fleet that uses green biomethane and hydrogen 	Medium term (2030– 2035)	\$\$\$	CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, SCAQMD Goods Movement Emission Reduction Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CPUC statewide transportation electrification infrastructure rebate program
T7 ^Q	Electrify County Fleet Vehicles: Electrify the County bus, shuttle, and light-duty vehicle fleets.			Electrify the County bus and shuttle vehicle fleets by 2035. Increase the fleetwide percentage of light- duty vehicles in the County–owned fleet that are ZEVs to: • 35% by 2030 • 60% by 2035 • 100% by 2045 Support the state's goal that all new light- duty vehicle fleet purchases, with certain exceptions, will be ZEVs.				

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T7.1	Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. ^M	PW, LASD	ISD		 Number of ZEV buses Number of ZEV light-duty vehicles Total ZEV percentage of bus and light-duty vehicle fleet 	Short to medium term (2024–2035)	\$\$\$\$	Caltrans grant, CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCE Charge Ready Transit Bus Pilot and Charge Ready Transport, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit
T7.2	Electrify light-duty County fleet vehicles. M	ISD, LASD, Fire, PW, Parks	CSO		ZEV percentage of light-duty County-owned fleet	Short to medium term (2024–2035)	\$\$\$	CARB Clean Vehicle Rebate Project public fleet vehicle rebates, CARB Clean Cars for All program, Caltrans grants, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit
T8 ^o (Core)	Accelerate Freight Decarbonization: Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure.			Increase the fleetwide percentage of medium- and heavy-duty vehicles in unincorporated Los Angeles County that are ZEVs to: • 40% by 2030 • 60% by 2035 • 90% by 2045 Increase the fleetwide percentage of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs to: • 50% by 2030 • 70% by 2035 95% by 2045				
T8.1	Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones.	DRP, CSO	SCAQMD, CARB, SCAG, Metro, councils of governments, cities		 Medium- and heavy-duty truck EVCSs Miles between EVCSs Sales and registrations of ZEV trucks Percent of drayage truck fleet that is ZEV 	Medium to long term (2030–2045)	\$\$\$\$	SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, SCAQMD Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates, CARB Advanced Technology Freight Demonstration Projects, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CEC Clean Transportation Program, Federal New EV Tax Credit, Federal Commercial EV Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T8.2	Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure.	DRP, CSO	PW, ISD		 Number and location of EVCS facilities Total number of medium- and heavy-duty ZEVs registered and operating in unincorporated Los Angeles County 	Short term (2024–2030)	\$	County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates for implementation/compliance, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives
T8.3	Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale.	DRP, CSO	PW, ISD		 Number and location of EVCS facilities Total number of medium- and heavy-duty ZEVs registered and operating in unincorporated Los Angeles County 	Short term (2024–2030)	\$\$	County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates for implementation/compliance, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives
T8.4	Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles.	DRP	CSO, PW		Number of permits completed	Short to medium term (2024–2035)	\$	County General Fund, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives
T8.5	Electrify the County medium- and heavy-duty vehicle fleet.	ISD, LASD, Fire, PW, Parks	CSO		Number and percent of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs	Short to long term (2024– 2045)	\$\$\$	CARB Clean Vehicle Rebate Project public fleet vehicle rebates, County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal New EV Tax Credit, Federal Commercial EV Tax Credit, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
T9 °	Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment: Prohibit the use of gas- and diesel- powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.			Increase the fleetwide percentage of off-road fleet and equipment in unincorporated Los Angeles County that are ZEVs to: 20% by 2030 50% by 2035 95% by 2045 Increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in unincorporated Los Angeles County that are ZEVs to: 50% by 2030 75% by 2035 100% by 2045				
T9.1	Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.	PW	DRP, CSO, ISD, SCAQMD, CARB		Off-road vehicle and equipment fleet count, type, and fuel type	Short term (2024–2030)	\$	CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program
T9.2	Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval.	PW, DRP	CSO, ISD, SCAQMD, CARB		 Development and adoption of ordinance Off-road vehicle and equipment fleet count, type, and fuel type 	Short term (2024–2030)	\$	CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program
T9.3	Require, to the maximum extent feasible, the use of zero- emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. ^M	PW	DRP, CSO, ISD, SCAQMD		 Development and adoption of ordinance Off-road vehicle and equipment fleet count, type, and fuel type 	Short term (2024–2030)	\$\$	CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program
Strategy 5	: Decarbonize Buildings	1					-	
E1 ^a (Core)	Transition Existing Buildings to All-Electric: As the carbon intensity of grid-supplied energy decreases, decarbonization of the electrical grid must be combined with building electrification, shifting the energy load from fossil natural gas to cleaner sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to electrify applicable existing buildings. Biomethane is another preferred alternative to fossil natural gas; however, existing opportunities for widespread use of biomethane are currently limited. The use of other zero-emission fuel sources for buildings should be considered.			Electrify the existing residential building stock: • 25% by 2030 • 40% by 2035 • 80% by 2045 Electrify the existing nonresidential building stock: • 15% by 2030 • 25% by 2035 • 60% by 2045				

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
E1.1	Adopt Building Performance Standards for existing buildings and	CSO, PW	DRP	Require Zero Net Energy (ZNE) for all major renovations: • 50% by 2030 • 75% by 2035 • 100% by 2045 Adopt building performance standards and reach code(s). Adopt ZNE ordinance. Conduct buildings portfolio analysis and cost feasibility study.		Short to medium term	\$	Funded; CPUC Technology and
	reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale.	C30, FW	DRF		 Energy consumption (gas use vs. electricity use vs. biomethane use) Number of existing buildings transitioned to all-electric 	(2024–2035)	•	Equipment for Clean Heating (TECH) and Building Initiative for Low Emissions Development (BUILD) programs, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act
E1.2	Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size.	CSO, DRP	PW, SoCalGas		 Carbon intensity limits/reporting Biomethane consumption 	Short to medium term (2024–2035)	\$	CPUC TECH program, CPUC BUILD program, CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, California Alternative Energy and Advanced Transportation Financing Authority, California Lending for Energy and Environmental Needs Center, Affordable Housing and Sustainable Communities Program, CPUC Energy Saving Assistance Program, CPA and CALeVIP rebates, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act
E1.3	Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits.	CSO, DRP	PW, CSO, SCE, CPA		Number of ZNE buildings constructed	Short term (2024–2030)	\$	County General Fund; funding sources identified above
E1.4	Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. ^M	ISD	PW, CSO, SCE, CPA		 Number of buildings electrified Energy consumption (gas use vs. electricity use) 	Short to long term (2024– 2045)	\$\$-\$\$\$\$	Funding sources identified above
E1.5	Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing.	CSO, DRP	DRP, SCE, CPA, RePowerLA Coalition, NRDC		 Number of units retrofitted Number of units with renter protections as a result of incentives 	Short to medium term (2024–2035)	\$\$\$	Federal Inflation Reduction Act

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
E1.6	Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing.	CSO, DRP	DRP, SCE, CPA, SoCalGas, RePowerLA Coalition, NRDC		 Number of owners served Number of retrofits implemented Number of contractors trained 	Short to medium term (2024–2035)	\$\$	Federal Inflation Reduction Act
E2°	Standardize All-Electric New Development: This measure aims to electrify all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.			 Require all applicable new buildings to be all electric. Provide affordable housing set-aside to offset first cost. Residential: 90% all-electric by 2030, 95% by 2035, and 100% by 2045 Nonresidential: 90% all-electric by 2030 (except large industry and possibly food service) 95% by 2035, and 100% by 2045 Require most new residential and nonresidential buildings to be ZNE beginning in 2030. Include affordable housing set-aside. Residential: 90% ZNE by 2030 (except large industry) 				
E2.1	Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.	PW, DRP	CSO, WDACS		 Number of all-electric buildings built Total electricity and natural gas consumption 	Short term (2024–2030)	\$	County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Adoption Grants
E2.2	Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost.	PW, DRP	CSO		Number of residential and nonresidential buildings constructed to be ZNE	Short term (2024–2030)	\$	County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction
E2.3	Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.	PW	CSO, DRP		Number of voluntary CALGreen Tier 2 standards adopted as code amendments	Short term (2024–2030); ongoing with CALGreen updates)	\$	New funds needed
E3	Other Decarbonization Actions: Reduce the life-cycle carbon intensity of building materials and phase out the use of high- GWP refrigerants.			Increase the proportion of biomethane in the utility natural gas mix to: 20% by 2030 30% by 2035 80% by 2045 Use low-carbon, carbon-neutral, or negative- carbon concrete for all new construction; identify carbon intensity limit of concrete. Replace high-GWP refrigerants with low- GWP refrigerants: 15% by 2030 25% by 2035 50% by 2045				

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
E3.1	Work with utilities to incorporate increasing levels of biomethane into the natural gas mix.	CSO, DRP	PW, SoCalGas, LACSD, CalRecycle		 Proportion of biomethane in utility natural gas mix 	Short to medium term (2024–2035); develop ordinance to be in effect by 2030	\$\$\$ (TBD based on cost of biomethane)	TBD
E3.2	Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete.	PW	CSO, DRP		Quantity of low-carbon concrete used in new construction	Short to medium term (2025–2035)	\$	TBD
E3.3	Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction.	CSO	DRP, PW		Quantity of low-carbon materials used in new construction	Short term (2024–2030)	\$	TBD
E3.4	Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants.	PW, ISD	DRP, U.S. EPA, CARB		Quantity of low-GWP refrigerants charged/used	Short term (2024–2030)	\$	TBD
Strategy 6	Improve Efficiency of Existing Building Energy Use	-					1	
E4°	Improve Energy Efficiency of Existing Buildings: Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use.			 Reduce building energy use intensity below 2015 levels as follows: 20% for residential, 15% for industrial, and 25% for commercial by 2030 25% for residential and industrial and 35% for commercial by 2035 50% for residential, industrial, and commercial by 2045 Adopt building performance standards and reach code(s). 	 Total number of retrofits Energy use/savings Building size (square footage) retrofit 			
E4.1	Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.)	ISD, CSO	SoCalREN, SCE, SoCalGas, CPA		 Overall energy savings Number of homes or businesses participating 	Short to medium term (2024–2035)	\$\$\$	New funds needed; GoGreen Business Energy Financing program, SoCalREN, SCE On-Bill Financing, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction, Residential Energy Efficiency Tax Credit, Affordable Housing Resilience and Efficiency Investments
E4.2	Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency.	CSO	PW, DRP, SCE, SoCalGas, CPA		 Energy use, electricity and gas (Btu) Building size (square footage) 	Short term (2024–2030)	\$	County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction, Residential Energy Efficiency Tax Credit, Affordable Housing Resilience and Efficiency Investments
E4.3	Convert existing County–owned heat-trapping surfaces to cool or green surfaces. ^M	ISD	CSO, PW		Number and area of cool and green roofs installed	Medium term (2030– 2035)	\$\$-\$\$\$	Project-based funding

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
Strategy	7: Conserve Water							
E5	Increase Use of Recycled Water and Graywater Systems: Increasing the use of alternative water sources (e.g., recycled water, graywater, indirect potable reuse) reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater).			Increase use of alternative water sources such that Unincorporated Los Angeles County demand is met by recycled water, graywater, or potable reuse: 25% by 2030 50% by 2035 90% by 2045 Ensure that water demand for agricultural will be recycled or graywater: 30% by 2030 50% by 2035 80% by 2045 Ensure that water demand for industrial will be recycled or graywater: 30% by 2030 50% by 2030 50% by 2035 80% by 2035 80% by 2045 Implement a successful direct potable reuse project by 2025.				
E5.1	Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems.	PW	DPH		Number of graywater systems installed	Long term (2035–2045)	\$	California Department of Water Resources grants; partial funds secured; additional funds needed
E5.2	Require the use of recycled water and graywater for agricultural purposes where recycled water is available. Identify soil and water conservation best practices for agricultural uses. Work with Los Angeles County Sanitation Districts (LACSD) and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities.	PW	DRP, DPH, LACSD, MWD		Recycled/graywater supply for agricultural purposes	Short to long term (2024– 2045)	\$\$-\$\$\$	New funds needed
E5.3	Require the use of recycled water and graywater for industrial purposes where recycled water is available. Identify water conservation best practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities.	PW	DRP, DPH, LACSD, MWD		Recycled/graywater supply for industrial purposes	Short to long term (2024– 2045)	\$\$-\$\$\$	TBD
E5.4	Require the use of recycled water and graywater for landscaping irrigation purposes where recycled water is available.	PW	DRP, DPH, LACSD, MWD		Recycled/graywater supply for landscape irrigation	Short to long term (2024– 2045)	\$\$-\$\$\$	TBD
E5.5	Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects.	PW, CSO	County water districts, MWD		Direct potable reuse output volume	Short term (2024–2030)	\$	TBD

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
E6°	Reduce Indoor and Outdoor Water Consumption: Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with the processing, treatment, and conveyance of water and wastewater.			 Reduce total water use to less than: 110 GPCD by 2030 100 GPCD by 2035 85 GPCD by 2045 Reduce outdoor landscaping water use to 10% by 2030, 20% by 2035, and 50% by 2045. Reduce municipal water consumption 10% by 2030, 20% by 2035, and 50% by 2045. 				
E6.1	Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net-zero water requirement for new greenfield development.	CSO	DRP, PW		 Total water use Water use per capita Square footage of each type of development (residential, commercial, municipal) built water-neutral Total water use Building size (square footage) 	Short term (2024-2030)	\$	New funds needed
E6.2	Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency.	PW, CSO	DRP		 Total water use Water use per capita Building size (square footage) 	Short to medium term (2024–2035)	\$	County General Fund
E6.3	Incentivize residents to replace water-intensive landscaping, such as decorative turf, with water-conserving landscaping and/or California native plants through a new ordinance along with education and incentive programs.	PW	CSO, DRP, water districts		Water use for landscaping	Short term (2024–2030)	\$	County General Fund
E6.4	Implement strategies to improve water efficiency and increase water conservation at County facilities. ^M	PW, ISD, Parks	CSO, DRP		Total water useWater use for landscapingIndoor water use	Short term (2024–2030)	\$\$	Project-based funding
E6.5	Integrate water-related programs into the County's affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate.	PW, DRP	CSO		Total water useWater use for landscapingIndoor water use	Short to medium term (2024–2035)	\$	Water agency funding and grant programs
Strategy 8	3: Minimize Waste and Recover Energy and Materials from the Wa	aste Stream	1			1		
W1 ^Q (Core)	Institutionalize Sustainable Waste Systems and Practices: Undertake actions that result in sustainable waste systems. Responsible and sustainable waste practices are learned behaviors that the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default.			Increase the total unincorporated Los Angeles County waste diversion rate to: 85% by 2030 90% by 2035 95% by 2045 Reduce the disposal of single-use plastics in landfills. Increase the Construction and Demolition Debris Ordinance to 70% diversion. Increase percentage of construction and demolition debris reused in new projects (private, public).				

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
W1.1	Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures.	CSO, PW	LACSD, DPH		 Per capita landfill disposal County unincorporated area diversion rate 	Short term (2024–2030)	\$\$	Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program
W1.2	Implement, enforce, and expand to the maximum extent feasible the single-use plastics ordinance and polystyrene ban.	CSO, PW	DPH		 Estimated source reduction of single-use plastics and polystyrene County unincorporated area waste generation and diversion rates 	Short to long term (2024– 2045)	\$-\$\$	Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program
W1.3	Increase the diversion requirements in the County's Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects.	PW	CSO, DRP, LACSD, CalRecycle		 C&D tonnage recycled/diverted from landfill C&D tonnage reused 	Short term (2024–2030)	\$	Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program
W2	Increase Organic Waste Diversion: Provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production.			Maximize organic waste diversion to support unincorporated Los Angeles County's overall waste diversion rate goals identified in Measure W1.				
W2.1	Require organic waste generators to properly manage organic waste as per the Organic Waste Disposal Reduction Ordinance. Improve upon and expand existing practices and programs to minimize organic waste disposal in landfills.	PW, Agricultural Commissioner/ Weights and Measures	CSO, LACSD, CalRecycle		 Per capita organic waste disposal or total organic waste disposed Total Countywide diversion rate 	Short to long term (2024– 2045)	\$-\$\$	Funded
W2.2	Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs.	PW	Waste collectors, CalRecycle		Organic waste (tons or pounds per capita) disposal tonnage	Medium term (2030– 2035)	\$\$\$	New funds needed; Grants from CalRecycle, CEC, CDFA, USDA
W2.3	Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste.	PW	CSO, LACSD, CalRecycle		Total energy generation or renewable vehicle fuel created from organic waste	Medium to long term (2030–2045)	\$\$\$\$	New funds needed; Grants from CalRecycle, CEC, CDFA, USDA
W2.4	Provide regional leadership for organic waste processing capacity planning and infrastructure development.	PW	LACSD, CalRecycle		 Capacity of organic waste processing facilities Amount of organic waste processed 	Medium to long term (2030–2045)	\$\$\$\$	Funded
W2.5	Enhance and expand the County's existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities.	PW	DPH, local businesses, restaurants, grocery stores, and nonprofits		Total tons of edible food donated to food recovery organizations	Short to medium term (2024–2035)	\$\$	USDA Supplemental Nutrition Assistance Program-Education; grants from CalRecycle, CEC, CDFA, and USDA

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
Strategy 9	Conserve and Connect Wildlands and Working Lands							
A1 °	Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.			 Reduce the amount of natural land converted for urbanized uses: 25% by 2030 (53 hectares conserved annually) 50% by 2035 (106 hectares conserved annually) 75% by 2045 (159 hectares conserved annually) 75% by 2045 (159 hectares conserved annually) Conserve and restore natural forest land: 2,000 acres by 2030 4,000 acres by 2035 6,000 acres by 2045 Acres of wildland managed for wildfire risk reduction and carbon stock savings: 10,000 acres by 2035 50,000 acres by 2045 				
A1.1	Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration.	DRP	CSO, Parks, DOC, Fire		 Total acres of natural habitats conserved Easements established; percentage of easements within climate-hazard areas or SEAs 	Short to long term (2024– 2045)	\$\$-\$\$\$	County General Fund
A1.2	Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan.	Agricultural Commissioner/ Weights and Measures, Fire	DRP, CSO, Parks, DOC		Acres of wildlands managed for wildfire risk reduction and carbon stock savings	Short to long term (2024– 2045)	\$\$-\$\$\$	Grants through CAL FIRE
Strategy 1	0: Sequester Carbon and Implement Sustainable Agriculture		•		•	•	•	
A2	Support Regenerative Agriculture: Promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality.			 Reduce the quantity of synthetic fertilizers used/applied. Increase the number of acres of cover crops using regenerative agricultural techniques. 				
A2.1	Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture.	Agricultural Commissioner/ Weights and Measures	CSO, PW, ISD		 Acres of bare-fallow land Acres of land using regenerative agricultural techniques 	Medium term (2030– 2035)	\$-\$\$\$\$	TBD

ID	STRATEGY/MEASURE/ACTION	LEAD	PARTNERS	PERFORMANCE OBJECTIVES	TRACKING METRICS	TIME FRAME	COST	FUNDING
A2.2	Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate.	Agricultural Commissioner/ Weights and Measures	CSO, LACSD		 Tonnage of compost and/or non-synthetic fertilizer provided to those producing crops Quantity of synthetic fertilizers used/applied Number of acres of cover crops using regenerative agricultural techniques 	Short term (2024–2030)	\$\$\$	TBD
A3 ^Q	Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County's tree canopy cover, add green space, and convert impervious surfaces. Focus tree planting on frontline communities with insufficient tree cover and green spaces.			 Plant new trees as follows:* 130,000 trees by 2030 200,000 trees by 2035 270,000 trees by 2045 Develop an Urban Forest Management Plan. * The performance objectives provided here serve as a general metric and may be refined upon completion of the Urban Forest Management Plan. 				
A3.1	Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity.	CSO	DRP, PW, Parks, Agricultural Commissioner/Weights and Measures, DPH, Beaches and Harbors, LASD, Fire, CAL FIRE, ISD		 Tree count Tree canopy cover Green space area Area of impervious surface converted Neighborhood selection criteria 	Short to long term (2024– 2045)	\$\$	New funds needed; CAL FIRE Urban and Community Forestry Grant
A3.2	Expand tree planting on County property and in the public right- of-way within unincorporated Los Angeles County. Encourage tree planting on private property.	CSO	DRP, PW, Parks, DPH, Beaches and Harbors, LASD, Fire, CAL FIRE, ISD		Number of trees plantedAcres of tree canopy cover	Short to long term (2024– 2045)	\$\$	CAL FIRE Urban and Community Forestry Grant
A3.3	Develop an ordinance requiring that all removed native trees be replaced by an equal or greater number of new trees.	CSO	DRP, PW, Parks		Number of trees planted/replaced	Short term (2024–2030)	\$	TBD

Abbreviations: AB = Assembly Bill; Beaches and Harbors = Los Angeles County Department of Beaches & Harbors; Btu = British thermal units; BUILD = Building Initiative for Low Emissions Development; CAL FIRE = California Department of Forestry and Fire Protection; CalCAP = California Capital Access Program; CALeVIP = California Electric Vehicle Infrastructure Project; CALGreen = California Green Building Standards; CalRecycle = California Department of Resources Recycling and Recovery; Caltrans = California Department of Transportation; CARB = California Air Resources Board; CCS = capture and carbon and sequestration; CDFA = California Department of Food and Agriculture; CEC = California Energy Commission; CIFIA = Carbon Dioxide Transportation Infrastructure Finance and Innovation; County = County of Los Angeles government; CPA = Clean Power Alliance; CPUC = California Public Utilities Commission; CSO = Chief Sustainability Office; DOC = California Department of Conservation; DOE = U.S. Department of Finergy; DPH = Department of Regional Planning; DU = dwelling unit; EV = electric vehicle; EVCS = electric vehicle charging station; EVSE = electric vehicles supply equipment. Fire = Los Angeles County Sint per aday; GWP = global warming potential; HQTA = high quality transit area; ISD = Internal Services Department; KBU = thousand British thermal units; KW = thousand British thermal units; KW = thousand British thermal units; KW = Metropolitan Transportation Althou = The Coal Recovery Outreach Program; CALE VIP = California Capital Access Program; CALE VIP = California Department of Conservation; CDFA = California Department of Reciver Program; CALE VIP = California Department of Food and Agriculture; CEC = California Department of Transportation; CVP = California Department of Reciver Program; CDE = California Department of Conservation; DOE = U.S. Department of Fuelsic Program; CDE = Coult Program; CDE = California Department of Conservation; DOE = California Department of Public Health; DRP = Department; FOA = Cl