

# South Pasadena Climate Action Plan - Preliminary Plays and Moves

## Timeframe of Implementation Legend

Estimated Timeframe	Number of Years
Short-term	1-3
Mid-term	3-5
Long-term	5+

## Preliminary Plays and Moves

### ENERGY

**Play E.1 Maximize the usage of renewable power within the community, by continuing to achieve an opt-out rate lower than 4% for the CPA 100% renewable power.**

Moves	Timeframe of Implementation	Reduction Potential
<p><b>E.1.a</b> Monitor progress and perform public outreach and education campaigns highlighting the benefits of 100% renewable energy, including:</p> <ul style="list-style-type: none"> <li>▪ monitoring opt-out rates on an annual basis,</li> <li>▪ tabling at community events,</li> <li>▪ establishing an informational resource page on the City website,</li> <li>▪ regular social media posts, and</li> <li>▪ energy bill inserts.</li> </ul>	Short-Term	High

**Play E.2 Require electrification of 100% of newly constructed buildings.**

Moves	Timeframe of Implementation	Reduction Potential
<p><b>E.2.a</b> Develop a webpage and materials for display at City Hall promoting the benefits of electrification and resources that can assist with the fuel-switching process.</p>	Short-term	Low
<p><b>E.2.b</b> Provide financial and technical resources, including hosting workforce development trainings for installers and building owners/operators to discuss benefits and technical requirements of electrification.</p>	Short-term	
<p><b>E.2.c</b> Perform an internal training with planners and building officials on state decarbonization goals and incentives available for electric homes.</p>	Short-term	
<p><b>E.2.d</b> Adopt an Electrification Readiness reach code for all new buildings and accessory dwelling units which bans the piping of natural gas. In doing so the City will:</p> <ul style="list-style-type: none"> <li>▪ engage with stakeholders, both internal stakeholders, such as City staff and officials, and external stakeholders, such as local developers regarding the purpose and impact of the reach code;</li> </ul>	Mid-term	

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- conduct a cost effectiveness study;
- develop and draft an ordinance;
- conduct public hearings, public notices, and formally adopt the ordinance; and
- submit the adopted ordinance to the California Energy Commission (CEC).

**E.2.e** Adopt an ordinance that allows granting of minor allowances for certain site development standards when there is no practical ways to design a project to be all electric. Mid-term

**Play E.3 Electrify 5% of existing buildings by 2030 and 80% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>E.3.a</b> Develop an existing building electrification permit tracking program to track annual progress in achieving the targeted electrification goal.	Short-term	Low
<b>E.3.b</b> Keep an updated list of rebates and incentives available to residents who would like to convert their buildings to electric power.	Short-term	
<b>E.3.c</b> Provide education on the potential savings energy savings and benefits of electric heat pumps for water heating and space heating when permits for replacement are obtained.	Short-term	
<b>E.3.d</b> Work with Southern California Edison (SCE) and/or the Clean Power Alliance to provide rebates for residential replacement of natural gas-powered air and water heating appliances with electric-powered.	Short-term	
<b>E.3.f</b> Perform an existing buildings analysis in order to understand the potential for electrification retrofitting in South Pasadena and establish a roadmap for eliminating natural gas from existing buildings.	Mid-term	
<b>E.3.g</b> Perform a cost-effectiveness study for electrification retrofitting, including requirements for newly permitted HVAC/hot water heaters and other appliances to be electric.	Mid-term	
<b>E.3.h</b> Establish a comprehensive, coordinated education campaign focused towards property owners and occupants for reducing the use of natural gas in homes and businesses. Establish a shared understanding of existing incentives for electric appliances and upgrades, and how to access them, including SCE incentive programs and rebates.	Mid-term	
<b>E.3.i</b> Promote water heater, space heating, and appliance (electric stoves/dryers) replacement programs and incentives (residential) at time of construction permit.	Mid-term	
<b>E.3.j</b> Develop a best practices model based on the progress electrifying existing buildings in South Pasadena and outside of South Pasadena to significantly increase electrification post-2030.	Long-term	

**Play E.4 Develop and promote reduced reliance on natural gas through increased clean energy systems that build off of renewable energy development, production, and storage.**

Moves	Timeframe of Implementation	Reduction Potential
<b>E.4.a</b> Conduct a Feasibility Study to assess cost and applicable locations for installation of battery back-up systems or generators throughout the City in support of General Plan Action A3.15a.	Short-term	Supportive
<b>E.4.b</b> Promote installation of storage technology in concert with renewable energy infrastructure through educational programs, outreach, and information provided via City platforms.	Short-term	
<b>E.4.c</b> Conduct "micro-grid" Feasibility/Pilot Study in support of General Plan Action A3.15b.	Short-term	
<b>E.4.d</b> In support of General Plan Action A3.15e, develop and implement a Solar Action Plan with a goal of meeting 50% of South Pasadena's power demand through solar by 2040.	Short-term	
<b>E.4.e</b> In support of the 2018-2019 City Strategic Plan, develop a strategy and implementation schedule for the Renewable Energy Plan, after feasibility study.	Short-term	
<b>E.4.f</b> Work with various City departments to establish and streamline battery storage requirements to allow for easier implementation of these technologies throughout the City.	Mid-term	
<b>E.4.g</b> Adopt a PV (solar) Ordinance requiring newly constructed and majorly renovated multi-family and commercial buildings to install PV systems with an annual output greater or equal to 25% of buildings electricity demand. Ensure consistency of ordinance with City General Plan policy A3.15a.	Mid-term	
<b>E.4.h</b> Require all new structures or major retrofits to be pre-wired for solar panels, consistent with General Plan Action A3.15a.	Mid-term	

**TRANSPORTATION**

**Play T.1 Increase zero-emission vehicle and equipment adoption to 13% by 2030 and 25% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>T.1.a</b> Develop an EV Readiness Plan to establish a path forward to increase EV infrastructure within the City and promote mode shift to EVs, that is consistent with the City General Plan transportation policies and actions A3.15g, A1.1, P1.2, and A1.2b and. In conjunction with an EV Readiness Plan, conduct a community EV Feasibility Study to assess infrastructure needs and challenges.	Short-term	Moderate
<b>T.1.b</b> Adopt an EV Charging Retrofits in Existing Commercial and Multifamily Buildings reach code requiring major retrofits, with either a permit value over \$200,000 or including modification of parking surfaces or electric panels, to meet CalGreen requirements for "EV Ready" charging spaces and infrastructure.	Short-term	
<b>T.1.c</b> Streamline permit processes (city, county, state, utility) for electric vehicle charging infrastructure and alternative fuel stations.	Short-term	
<b>T.1.d</b> Enhance promotion of public and private conversion to zero-emission vehicles through implementation of City General Plan Action A3.15f; including use of City events, social media, and the City website to educate on benefits of zero-	Short-term	

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emission vehicles and available incentives.

**T.1.e** Establish an ordinance that restricts use of gas-powered lawn equipment, including leaf blowers. Short-term

**T.1.f** Adopt an EV Readiness Reach Code requiring new commercial construction to provide the minimum number of EV capable spaces to meet Tier 2 requirements (20% of total). In doing so the City will:

- engagement with stakeholders, both internal stakeholders, such as local government staff and officials, and external stakeholders, such as local developers regarding the purpose and impact of the reach code; Mid-term
- conduct a cost effectiveness study;
- develop and draft an ordinance;
- conduct public hearings, public notices, and formally adopt the ordinance; and
- submit the adopted ordinance to the California Energy Commission (CEC).

**T.1.g** Earmark and identify additional funding for implementation of the EV Readiness Plan to include public charging infrastructure in key locations. Long-term

**Play T.2 Implement programs for public and shared transit that decrease passenger car VMT 2% by 2030 and 4% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>T.2.a</b> Conduct a Feasibility and Community Interest Study on the four transit improvement options of the City's General Plan Action A4.10.	Short-term	Low
<b>T.2.b</b> Pursue a community car, bike, or e-scooter "micro-transit" share pilot consistent with City General Plan Policy P4.10 and Action A4.10.	Short-term	
<b>T.2.c</b> Conduct local transportation surveys to better understand the community's needs and motivation for travelling by car versus other alternatives such as bus or Metro Gold Line light rail. Use survey results to inform transit expansion and improvement projects.	Short/ Mid-term	
<b>T.2.d</b> Adopt a Transportation Demand Management (TDM) Plan for the City that includes a transit system focus. Provide incentives for implementation of TDM measures at local businesses and new developments.	Mid-term	
<b>T.2.e</b> Develop and implement the Strategic Transit Plan consistent with City General Plan Policy P4.10, and Actions A4.10 and A4.12. Continue to engage with LA Metro to improve transit service within the City through Metro's Long-Range Transportation Plan Update.	Mid-term	
<b>T.2.f</b> Work with the South Pasadena School District to develop an Alternative Transportation Plan for schools by improving/expanding walking school bus, Safe Routes to School programs, and school bus services.	Mid-term	
<b>T.2.g</b> Facilitate transportation equity through targeted provision of programs that encourage minority, low-income, and senior populations to take transit, walk, bike, use rideshare or car share.	Mid-term	

**Play T.3 Develop and implement an Active Transportation Plan to shift 3% of passenger car VMT to active transportation by 2030, and 5% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>T.3.a</b> Develop and adopt an Active Transportation Plan consistent with SCAG 2016 RTP/SCS that will identify funding strategies and policies for development of pedestrian, bicycle, and other alternative modes of transportation projects. Establish citywide events, outreach, educational programs, and platforms to promote active transportation in the community in support of General Plan Policy P4.2, and Actions A4.7a and A4.7b.	Short-term	Low
<b>T.3.b</b> Conduct a Street/Intersection Study to identify streets and intersections that can be improved for pedestrians and bicyclists through traffic calming measures and/or where multi-use pathway opportunities exist to increase active transportation.	Short-term	
<b>T.3.c</b> Annually update the City's Bicycle and Pedestrian Network Map and post throughout City.	Short-term	
<b>T.3.d</b> Conduct a nexus study and develop an ordinance requiring payment of fees from development projects to implement safe active transportation routes and infrastructure citywide.	Mid-term	
<b>T.3.e</b> Pass ordinance/resolution requiring any major road upgrade to include bicycle infrastructure unless a significant cost/feasibility issue is shown.	Mid-term	
<b>T.3.f</b> Amend zoning code to require installation of bike stalls or lockers at new developments, "mobility hubs", and during change of use of existing buildings, consistent with General Plan Action A4.12	Mid-term	
<b>T.3.g</b> Adopt a Trip Reduction Ordinance that includes requirements in the Zoning Code to require end-of-trip facilities for cyclists (e.g., showers, bike repair kiosks, and lockers) in new, non-residential building projects of a specified size.	Mid-term	

**WATER**

**Play W.1 Reduce per capita water consumption by 10% by 2030 and 35% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>W.1.a</b> Continue to enforce the Model Water Efficient Landscapes Ordinance.	Short-term	Low
<b>W.1.b</b> Work with the Los Angeles County Sanitation District (LACSD) to bring recycled water lines and infrastructure to the City.	Short-term	
<b>W.1.c</b> In conjunction with Downtown Specific Plan Action A1.3e and City General Plan Action A1.4c, adopt an ordinance restricting the use of potable water for non-potable uses and requiring greywater capture for land uses that are excess water users (e.g. golf courses, car washes, large fields, etc.).	Mid-term	

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**W.1.d** Implement Plays 1 through 4 under Goal II of the Green Action Plan on the provided implementation timeline, aiming to provide education and promotion of greywater systems. (See the City's Green Action Plan for more information). Mid-term

**W.1.e** In conjunction with Move II.1.1 of the City Green Action Plan, develop a Recycled Water Use Master Plan that identifies access to recycled water and quantity of recycled water available to the City, as well as establishes an implementation plan. The implementation plan shall identify land use types (i.e., landscaping, golf courses, fields) and specific projects that will switch from potable to recycled water use allowing for a goal of 20% of City's potable water use to be replaced with recycled water. Mid-term

**W.1.f** Implement 100% renewable power for all pumping and treatment of water. Mid-term

**SOLID WASTE**

**Play SW.1 Implement and enforce SB 1383 organics and recycling requirements to reduce landfilled organics waste emissions 50% by 2022 and 75% by 2025.**

Moves	Timeframe of Implementation	Reduction Potential
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<b>SW.1.a</b> Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	Short-term	Low
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<b>SW.1.b</b> Adopt an ordinance requiring compliance with SB 1383. Ensure ordinances established through the City General Plan Action A3.17a and the Zero Waste Plan are consistent with SB 1383 requirements; and revise ordinances if necessary.	Short-term	
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<b>SW.1.c</b> Adopt an Edible Food Recovery Ordinance for edible food generators, food recovery services, or organization that are required to comply with SB 1383.	Short-term	
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<b>SW.1.d</b> Partner with the City's waste hauler, to provide organic waste collection and recycling services to all commercial and residential generators of organic waste.	Short-term	
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<b>SW.1.e</b> Adopt an ordinance requiring all residential and commercial customers to subscribe to an organic waste collection program and/or report self-hauling or backhauling of organics.	Short-term	
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<b>SW.1.f</b> Adopt an ordinance or enforceable mechanism to regulate haulers collecting organic waste, including collection program requirements and identification of organic waste receiving facilities.	Short-/mid-term	
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**SW.1.g** Partner with City Waste Services to:

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| <ul style="list-style-type: none"> <li>▪ ensure organic waste collection from mixed waste containers are transported to a high diversion organic waste processing facility;</li> <li>▪ provide quarterly route reviews to identify prohibited contaminants potentially found in containers that are collected along route;</li> <li>▪ clearly label all new containers indicating which materials are accepted in each container, and by January 1, 2025, place or replace labels on all containers.</li> </ul> | Mid-term |
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**SW.1.h** Conduct a Feasibility Study and prepare an action plan to ensure edible food reuse infrastructure is sufficient to accept capacity needed to recover 20% of edible food disposed or identify proposed new or expanded food recovery capacity. Mid-term

**SW.1.i** Establish an education and outreach program for school children and adults around food waste prevention, nutrition education, and the importance of edible food recovery. Support City Green Action Plan Play III identified educational goals (Move III.1.3., Move III.1.4., Move III.1.6., Move III.2.1, Move III. 3.3, and Move III.4.2) through an established educational program. Mid-term

**SW.1.j** Establish an edible food recovery program supporting City General Plan Action A5.9c and the City Green Action Plan Move III.1.2 to minimize food waste. Mid-term

**Play SW.2 Reduce residential and commercial waste sent to landfills by 50% by 2030 and 100% by 2045.**

Moves	Timeframe of Implementation	Reduction Potential
<b>SW.2.a</b> Develop and implement a Zero Waste Plan, consistent with General Plan Action A.3.17a, in order to reach South Pasadena’s goal of zero waste by 2040.	Short-term	Low
<b>SW.2.b</b> Increase reuse, recycling, and composting at temporary public events by mandating the installation of public recycling and composting containers and collection service; and encouraging reusable food ware, when relevant, according to the California State Retail Food Code.	Short-term	
<b>SW.2.c</b> Develop a waste department or working group to enhance recycling and composting outreach and provide technical assistance or information in support of City Green Action Plan Move III. Additionally, implement and share a Recycle and Reuse Directory through City platforms, in support of Green Action Plan Move I.2.5.	Short-term	
<b>SW.2.d</b> Adopt an ordinance requiring compliance with Sections 4.410.2, 5.410.1, 4.408.1, and 5.408.1 of the California Green Building Standards Code related to construction of buildings with adequate space for recycling containers and construction and demolition (C&D) recycling.	Short-term	
<b>SW.2.e</b> Implement City General Plan Action A3.17c, requiring construction sites to separate waste for proper diversion and reuse or recycling.	Short-term	
<b>SW.2.f</b> Develop and implement a Waste Stream Education Program targeting property managers of multi-family residences and the commercial sector, in support of Goal III of the City Green Action Plan.	Mid-term	
<b>SW.2.g</b> Develop policies to mandate/encourage reduction of waste and reuse in the food industry (e.g. facilities serving prepared food and prepackaged food; home meal delivery services), hospitality industry, and other commercial industries. Efforts may include developing ordinances for food service ware and a ban on single-use individual toiletry bottles in hotels/motels, grant/discount programs for switching to reusables, fast food champion pilot project, and working with home meal delivery services (e.g., Blue Apron), etc. to explore opportunities to reduce single-use packaging and encourage reuse.	Mid-term	

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**SW.2.h** Encourage reusable foodware; or if reusable foodware is not a feasible option, explore opportunities to mandate/encourage a switch to more environmentally friendly alternatives for various products in the commercial industry, when relevant. Mid-term

**CARBON SEQUESTRATION**

**Play CS.1 Increase carbon sequestration through increased tree planting and green space.**

Moves	Timeframe of Implementation	Reduction Potential
<b>CS.1.a</b> Identify and map public spaces that can be converted to green space, including public parking that can be converted to parklets, freeway airspace that can be made into green space, vertical walls that can be planted with vines, and rooftops of public buildings that can be developed into gardens.	Short-term	Low
<b>CS.1.b</b> Adopt a Greenscaping Ordinance that has a street tree requirement for all zoning districts, has a shade tree requirement for new development, requires greening of parking lots, and increases permeable surfaces in new development.	Short-term	
<b>CS.1.c</b> Prepare and adopt an Urban Forest Management Plan for the City that includes an inventory of existing trees, identifies future tree planting opportunities, and a climate-ready tree palette, as well as ongoing operations and maintenance needs.	Mid/Long-term	
<b>CS.1.d</b> Adopt a standard policy and set of practices for expanding urban tree canopy and placing vegetative barriers between busy roadways and developments to reduce exposure to air pollutants from traffic.	Mid/Long-term	

**MUNICIPAL**

**Play M.1 Reduce Carbon Intensity of City Operations.**

Moves	Timeframe of Implementation	Reduction Potential
<b>M.1.a</b> As recommended in the 2016 Renewable Energy Council Report, complete energy audits for all City facilities and implement all feasible recommendations for fuel switching and efficiency upgrades.	Short-term	Low
<b>M.1.b</b> As recommended in the 2016 Renewable Energy Council Report, purchase renewable natural gas (RNG) for applicable City fleet vehicles.	Short-term	
<b>M.1.c</b> As recommended in the 2016 Renewable Energy Council Report, install PV solar systems at the City Hall and at Wilson Reservoir.	Mid-term	
<b>M.1.d</b> Adopt retrofitting policy for City owned buildings such that energy efficient and electrification retrofits are incorporated into City buildings as they become available.	Mid-term	
<b>M.1.e</b> Develop a policy for the City which would require all new building RFP's to include life cycle costing over 30 years and tie this directly to energy consumption and building electrification. This would include the buildings operational and	Mid/Long-term	



maintenance costs and ensure that the City has the most cost effective (and sustainable) building possible.

<b>M.1.f</b> As recommended in the 2016 Renewable Energy Council Report, invest all savings from City energy efficiency projects into a new revolving green fund that can be used to fund additional energy efficiency and GHG reduction projects.	Long-term
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**Play M.2 Electrify the municipal vehicle fleet and mobile equipment.**

Moves	Timeframe of Implementation	Reduction Potential
<b>M.2.a</b> Develop a suite of transportation demand management tools to incentivize alternative transportation methods for employees, including telecommute options.	Short-term	Low
<b>M.2.b</b> Provide bicycles and bicycle storage for employees to use during work hours for short business or personal trips.	Short-term	
<b>M.2.c</b> Develop and adopt a policy to apply lifecycle assessment to all new vehicle and equipment purchases.	Mid-term	
<b>M.2.d</b> Implement the City Fleet Alternative Fuel Conversion Policy developed under City General Plan Action A3.15f, electrifying the City vehicle fleet and using it to encourage residents to convert as well.	Mid-term	
<b>M.2.e</b> Install EV charging stations at municipal buildings.	Mid-term	

**Play M.3 Increase City's renewable energy production and energy resilience.**

Moves	Timeframe of Implementation	Reduction Potential
<b>M.3.a</b> Conduct a Feasibility Study to determine which City buildings would serve as ideal resiliency centers including solar and battery installations.	Short-term	Supportive
<b>M.3.b</b> Convert all streetlights to light emitting diode (LED) bulbs.	Short-term	
<b>M.3.c</b> Work with SCE to identify and develop local solar projects to connect to the grid.	Mid-term	
<b>M.3.d</b> Install solar arrays at facilities that currently do not have solar arrays and work with emergency services to add solar and battery storage at priority locations. Review options for potential to combine multiple buildings into microgrid systems.	Mid-term	