



This chapter outlines how the City of Escondido (“City”) will implement and monitor the Climate Action Plan (“CAP”) strategies and measures over time to reduce greenhouse gases (“GHGs”). To achieve the GHG emissions reductions described in **Chapter 3**, strategies and measures must be reviewed, maintained, and implemented in a consistent manner to successfully serve the CAP’s purpose.

Detailed steps for implementation were created as part of the City’s previous CAP, prepared in 2013 (“2013 CAP”). The information presented in this chapter serves as an update to the implementation steps identified in the 2013 CAP and provides a framework for the City to monitor strategy and measure implementation.

Successful implementation of this CAP will require ongoing monitoring and review to ensure measures are effective. City staff will identify the feasibility of each measure’s implementation and will monitor implementation progress in meeting the City’s GHG reduction targets.

Implementing this CAP will involve the City Council, Planning Commission, other boards and commissions, as well as City departments. The City will need to collaborate with the San Diego Association of Governments (“SANDAG”), the County of San Diego, other public and private agencies, and adjacent cities to implement strategies and measures requiring regional collaboration. The limited resources annually available to the City do not allow every strategy and measure to be funded and implemented simultaneously. The CAP’s effective implementation will require a process to prioritize its strategies and measures periodically.

Implementation of measures identified in this CAP would meet the City’s GHG reduction targets based on the analysis presented. As the City implements these measures, it will continue to examine additional efforts that could be taken to further reduce citywide GHG emissions. Such additional efforts may include the City’s exploration of and participation in a regional offset program or fund. A regional offset program would provide new developments proposed in the City the opportunity to reduce their GHG emissions beyond feasible onsite actions. The program would consist of a fund or a list of GHG-reducing projects that new developments would be permitted to buy into to receive “credit” for emissions reductions from associated projects. Regional offset projects could include solar panel installation on existing buildings, electric vehicle purchasing for large vehicle or bus fleets, or energy retrofits for existing homes. Any “credits” generated through such a program would need to be additional to the strategies and measures identified in the CAP, or quantified GHG reductions identified in and associated with other regulatory programs or actions. This CAP does not rely on implementation of an offset program to meet GHG reduction targets.

4.1 Implementation Strategy

The implementation strategy presented in this chapter would ensure that the overall direction set forth in the CAP is translated into City and community actions. The purpose of this implementation strategy is to describe the specific actions the City will require of new developments, and will undertake itself, to achieve communitywide reductions in GHG emissions. Continuous management, oversight, and staffing is required for the implementation of the GHG reduction measures. Ensuring that measures translate to on-the-ground results and reductions in GHG emissions is critical to the success of the CAP. Success of the City’s CAP and GHG emissions reduction measures will depend on the participation of City departments, residents, and businesses.

This CAP's implementation strategy identifies which measures require the most significant effort to implement and require the earliest implementation to achieve the GHG reductions identified in this CAP.

To achieve GHG reduction targets, an implementation strategy is required to determine the priority of the strategies described in **Chapter 3**. Priorities are determined by a variety of factors, including staff resources needed, required level of department/agency collaboration, and timeframe of implementation. To continue successful implementation of the

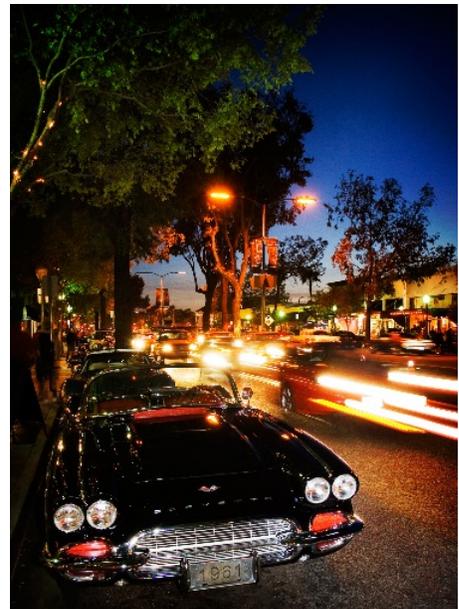
CAP strategies, the City will further expand on this initial examination once implementation has begun. Implementation of this CAP will be achieved through two primary efforts: environmental review for new developments and City-led implementation activities.

4.1.1. New Development Environmental Review

The California Environmental Quality Act ("CEQA") requires lead agencies to identify significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. Most proposals for physical developments are subject to the provisions of CEQA. The City has adopted local Environmental Quality Regulations that set thresholds for determining significance. As part of the development of this CAP, the City has updated these thresholds for determining significance for impacts related to GHG emissions. This CAP meets the criteria identified in Section 15183.5 of the CEQA Guidelines and, therefore, is considered a "qualified" CAP and may be used for the specific purpose of streamlining the analysis of GHG emissions for subsequent projects. The methodology for determining these thresholds is included in **Appendix C**.

CEQA Streamlining

New developments that are consistent with growth projections and applicable GHG reduction measures of the CAP are eligible for streamlining under the CEQA, per the provisions of the State's CEQA Guidelines Section 15183.5. Under these provisions, a project that is subject to discretionary review and is consistent with the City's General Plan growth projections can show consistency with applicable GHG reduction measures in a CAP, and the level of analysis for the project required under CEQA can be streamlined. Furthermore, a project's incremental contribution to cumulative GHG emissions may be determined not to be cumulatively considerable. The City has established a GHG screening threshold (set at 500 metric tons carbon dioxide equivalent ["MTCO_{2e}"] per year) for new development projects to determine if a project would need to demonstrate consistency with the CAP through the Checklist (**Appendix E**). New development projects that are consistent with the General Plan and are expected to generate fewer than 500 MTCO_{2e} annually would not have a cumulative impact and would not be required to provide additional analysis.



Source: City of Escondido

New development projects that are expected to generate greater than 500 MTCO_{2e} annually, but are consistent with the General Plan land use designation and zoning, may be determined to have a less than significant cumulative impact if they are determined to be consistent with the CAP. A project's consistency with the CAP will be determined through the CAP Consistency Review Checklist ("Checklist"). The Checklist contains GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to ensure that the specific emission targets

identified in the CAP are achieved. New development projects will need to incorporate all potential applicable CAP measures to demonstrate consistency with the CAP. **Table 4.1** provides a summary of the CAP measures included in the Checklist as well as the new development types to which they are applicable.

Measure		Applicability
T-1.3	Adopt an Ordinance to Require EV Charging Stations at New Developments	New multi-family and commercial developments
T-1.4	Require EV Charging Stations at New Model Home Developments	New single-family homes and townhouses
T-2.3	Increase Renewable or Alternative Fuel Construction Equipment	All new developments
T-3.2	Improve Pedestrian Infrastructure in Priority Areas	All new developments in priority areas
T-3.4	Develop a Citywide TDM Ordinance	New non-residential developments
T-3.5	Update Bicycle Master Plan	All new developments that also propose/require roadway improvements ¹
T-3.6	Increase Transit Commuters Among New Downtown Residents	New residential developments within the Downtown Specific Plan area
E-4.1	Require New Residential Developments to Install Alternately-Fueled Water Heaters	New residential developments
E-4.2	Require New Multi-Family Residential Developments to Install Electric Cooking Appliances	New multi-family residential developments
E-5.2	Require New Commercial Developments to Achieve ZNE	New office and retail developments
W-6.2	Reduce Landscape Water Consumption at New Model Home Developments	New single-family homes and townhouses
C-9.1	Enforce Landscape Tree Requirements at New Developments	All new developments

Notes: CAP = Climate Action Plan; EV = electric vehicle; TDM = transportation demand management; ZNE = zero net energy
¹ Further detail regarding measure applicability to new developments are provided in the *Climate Action Plan Consistency Review Checklist*.
 Source: Ascent Environmental 2020.

New development projects that are not consistent with General Plan land use designations and zoning would be required to develop a project-specific GHG analysis. The requirements of this analysis would be determined by the Director of Community Development and confirmed by the decision-making authority on a project-by-project basis. As the CAP is updated, the Checklist may also be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP and/or local, State, or federal laws and/or regulations. By incorporating applicable GHG reduction measures in the Checklist into project designs or conditions of approval, the City will ensure that new development is consistent with applicable GHG reduction measures in the CAP and will contribute its “fair share” in achieving the identified GHG reduction targets.

4.1.2. City-Led Implementation Activities

The City will implement strategies and measures of the CAP through several types of programs and activities that can be grouped into categories. The categories identified for implementation activities include: Municipal Operations; New Ordinances and Code Updates; Planning; Partnerships; and Education and Outreach. While each measure identified in the CAP would fall into one of these categories, some measures overlap and belong to more than one category. For example, increasing citywide waste diversion (**Measure S-8.1**) first requires partnerships with existing waste haulers to ensure solid waste is handled appropriately, but would also require education to inform residents on proper solid waste sorting and reduction strategies. Detailed descriptions of each category are provided below.

Several CAP measures will require the City to develop and implement new ordinances, update the City's code, and collaborate with other local or regional agencies to achieve GHG reductions.

Municipal Operations: Certain measures included in this CAP require specific City actions to update and make municipal operations more efficient. Examples include increasing the amount of renewable energy generated at municipal facilities (**Measure E-5.1**) and increasing the efficiency of streetlights (**Measure E-4.3**). These measures would be implemented by the City and would reduce emissions specifically related to municipal operations.

New Ordinances and Code Updates: Several measures in the CAP would be implemented through new ordinances or amended regulations adopted by the City. Examples of measures that require municipal approval include requiring new developments to install electric vehicle ("EV") charging stations (**Measure T-1.3**) and requiring new residential developments to install alternatively-fueled water heaters (**Measure E-4.1**). New ordinances will ensure that the City requirements are in place to achieve the objectives of the CAP.

Planning: Measures that are more programmatic in nature require visioning and a larger planning effort to realize GHG reductions. Examples of implementation or development of planning documents or programs include an update to the City's Bicycle Master Plan (**Measure T-3.4**) and an Urban Forestry Program (**Measure C-9.2**).

Financing and Incentives: Identifying mechanisms for funding and allocating resources will help ensure that the CAP is successfully implemented. Strategies and measures identified in the CAP would be implemented by community residents, business owners, and developers with opportunities and incentives to contribute to citywide GHG reductions. Promoting financing and incentive programs, like SANDAG's iCommute program (**Measure T-3.1**), increases the participation in achieving citywide reduction goals.

Partnerships: Interagency coordination and partnerships with other organizations are critical to ensuring implementation of certain measures. This includes collaboration with SANDAG on developing an intra-city shuttle program (**Measure T-3.7**) and implementation of a Safe Routes to School Program with the Escondido Unified School District (**Measure T-3.3**). Other measures include collaboration with other government agencies, transportation agencies, and waste haulers in the region.

Education and Outreach: Educational efforts about the objectives of the CAP will help create support for the CAP and involve the community in its implementation. Informing residents and business owners about the co-benefits of GHG reduction measures would encourage participation and awareness of the goals of the CAP.

4.1.3. Implementation Timeframe

The timeframe over which strategies are implemented varies between both short-term (i.e. within a couple years) and long-term (i.e. within several years). These implementation timeframes were developed consistent with the implementation efforts identified in the 2013 CAP. Continuation of similar implementation definitions between CAPs assists in comparing the implementation efforts required for various measures over time. Prioritization of the measures is based on the timeframe over which measures can be implemented. Certain measures should be prioritized early because they require more effort and take longer to implement. Assigning such measures a higher implementation priority would allow the City to allocate resources appropriately. Generally, timeframes associated with each measure can be categorized as follows:

- **Ongoing:** Implementation is already occurring
- **Short-term:** Implementation will occur within the next three years
- **Mid-term:** Implementation will occur within approximately four to ten years

In general, all measures included in this CAP will require initial implementation actions to occur within the first few years after CAP adoption. Following initial short- or mid-term implementation actions, implementation of projects, programs, and plans will require ongoing management, communication, monitoring, and administration. The implementation timeframes provided in the implementation strategy matrix (**Table 4-3**) reflect the timeframe during which initial implementation of a measure would occur and if ongoing implementation is required.

4.1.4. Implementation Effort

Levels of effort required to implement measures are based on cost and ease of implementation. The implementation effort of each CAP measure is based on a scale of low, medium, or high. Consideration of staff implementation costs and the overall feasibility of implementation is needed to guide CAP measure prioritization. Staff implementation costs are based on the anticipated levels of resources, staffing, and timeframe required to implement each measure. Implementation costs are not intended to represent the relative costs of compliance for residents and businesses, but rather focuses on the City's relative costs to facilitate program development and implementation. Ease of implementation is based on whether there are already existing programs that are related, coordination between different departments or agencies, and a comparison between existing and proposed strategies.

While implementation of some measures can be achieved by existing staff, others will require the City to assign staff from various departments to assist with measure implementation or coordinate with staff from other agencies.

Sample criteria used to define the implementation efforts for each measure are shown in **Table 4-2**. It is possible for a measure to have a mix of implementation effort levels (i.e. have low staff implementation costs and high ease of implementation).

Table 4-2 Implementation Effort Sample Criteria

Implementation Effort Level	Staff Implementation Costs	Ease of Implementation
Low	<ul style="list-style-type: none"> Requires limited resources of current staff Existing staff can implement but will require reprioritization of workload 	<ul style="list-style-type: none"> Existing programs in place to support implementation Limited external and internal coordination required Limited revisions to policy or code
Medium	<ul style="list-style-type: none"> Requires staff resources beyond current capacity Requires new part-time staff or contracts to implement 	<ul style="list-style-type: none"> Requires external and internal coordination Involves policy or code revisions The amount of funding needed for implementation is known and it can be acquired
High	<ul style="list-style-type: none"> Requires extensive staff resources Requires a significant number of new staff or contracts to implement 	<ul style="list-style-type: none"> Requires revisions to the General Plan or development of new policies, programs, or codes Requires robust outreach programs to residents and businesses Requires regional cooperation Requires securing long-term funding

Source: Ascent Environmental 2020.

4.1.5. Implementation Strategy Matrix

The implementation strategy matrix, outlined below in **Table 4-3**, provides a summary of the initial prioritization and categorization of the CAP's strategies and measures. The matrix includes an implementation activity type, responsible department or agency, implementation timeframe, level of implementation cost, and ease of implementation for each measure. Following adoption of the CAP, this implementation strategy matrix will serve as initial guidance for City staff. Future updates to the CAP will require the matrix to be adjusted according to feasibility and legislative requirements. Key staff in each department or agency will facilitate and oversee measure implementation, allocate staff resources, and secure funding, as needed.



Source: City of Escondido

Following approval of this CAP, the City will begin examining the actions that required to implement CAP measures. Additional implementation steps for each measure will build upon the implementation costs included in this CAP and further develop the information presented in this chapter. The specific steps required to implement each CAP strategy will serve as a reference document for City staff to identify implementation tasks, timelines, and responsible departments. Through the implementation process, City staff may need to revisit identified implementation steps to reflect adjusted timeframes, changes in budget availability, or development of new technologies.

Table 4-3 Implementation Strategy Matrix						
Measure	Title	Category	Responsible Department/ Agency	Implementation Timeframe	Staff Implementation Costs	Ease of Implementation
Strategy 1: Increase Use of Zero-Emission or Alternative Fuel Vehicles						
T-1.1	Transition to a Clean and More Fuel-Efficient Municipal Vehicle Fleet.	Municipal Operations	PW	Mid-Term	Low	Low
T-1.2	Install EV Charging Stations at Park and Ride Lots.	Planning	CD; PW	Short-Term	Medium	Medium
T-1.3	Adopt an Ordinance to Require EV Charging Stations at New Developments.	New Ordinances and Code Updates	CD; PW	Short-Term	Low	Medium
T-1.4	Require EV Charging Stations at New Model Home Developments.	New Ordinances and Code Updates	CD	Mid-Term	Low	Medium
Strategy 2: Reduce Fossil Fuel Use						
T-2.1	Synchronize Traffic Signals.	Municipal Operations	PW	Ongoing	Low	Medium
T-2.2	Install Roundabouts.	Planning	CD	Ongoing	Medium	Medium
T-2.3	Increase Renewable and Alternative Fuel Use in Construction Equipment.	New Ordinances and Code Updates	CD	Short-Term	Low	Low
Strategy 3: Reduce Vehicle Miles Traveled						
T-3.1	Participate in the SANDAG iCommute Vanpool Program.	Partnerships	CM; CD	Ongoing	Low	Low
T-3.2	Improve Pedestrian Infrastructure in Priority Areas.	Planning	CD	Ongoing	Low	Low
T-3.3	Implement the Safe Routes to School Program.	Education and Outreach	CD; EUSD	Ongoing	Low	Low
T-3.4	Develop a Citywide TDM Plan.	Planning	CD	Short-Term	Medium	Medium
T-3.5	Update Bicycle Master Plan.	Planning	CD	Ongoing	Medium	Medium
T-3.6	Increase Transit Commuters Among New Downtown Residents.	Education and Outreach	CD	Ongoing	Low	Low
T-3.7	Develop an Intra-City Shuttle Program.	Planning; Partnerships	CD; PW	Mid-Term	High	Medium

Table 4-3 Implementation Strategy Matrix						
Measure	Title	Category	Responsible Department/ Agency	Implementation Timeframe	Staff Implementation Costs	Ease of Implementation
T-3.8	Increase Transit Ridership.	Planning; Partnerships	CD; SANDAG	Mid- to Long-Term	Medium	Medium
T-3.9	Develop and Implement a Service Population-Based VMT Threshold.	Planning	CD	Short-Term	Low	Low
Strategy 4: Increase Building Energy Efficiency						
E-4.1	Require New Residential Developments to Install Alternatively-Fueled Water Heaters.	New Ordinances and Code Updates	CD	Short-Term	Low	Low
E-4.2	Require New Multi-Family Residential Developments to Install Electric Cooking Appliances.	New Ordinances and Code Updates	CD	Short-Term	Low	Low
E-4.3	Reduce Electricity Use in Streetlights.	Municipal Operations	PW	Ongoing	Low	Medium
E-4.4	Require Non-Residential Alterations and Additions to Install Alternative-Fuel Water Heaters.	New Ordinances and Code Updates	CD	Short-Term	Low	Low
Strategy 5: Increase Renewable and Zero Carbon Energy						
E-5.1	Increase Renewable Energy Generated at Municipal Facilities	Municipal Operations	ES; PW	Ongoing	Low	Medium
E-5.2	Require New Commercial Developments to Achieve ZNE.	New Ordinances and Code Updates	CD	Ongoing	Medium	High
E-5.3	Increase Grid-Supply Renewable and/or Zero-Carbon Electricity.	Financing and Incentives; Partnerships; Education and Outreach	CD; CM	Ongoing	Medium	High
E-5.4	Increase Renewable Electricity Generated at School Sites.	Partnerships	EUSD	Ongoing	Medium	High

Table 4-3 Implementation Strategy Matrix						
Measure	Title	Category	Responsible Department/ Agency	Implementation Timeframe	Staff Implementation Costs	Ease of Implementation
Strategy 6: Increase Water Efficiency						
W-6.1	Reduce Municipal Landscape Water Consumption.	Municipal Operations	ES; PW	Ongoing	Low	Medium
W-6.2	Reduce Landscape Water Consumption at New Model Home Developments.	Planning	CD	Ongoing	Low	Low
Strategy 7: Diversify Local Water Supply						
W-7.1	Develop a Local Water Supply for Agricultural Water Use.	Planning	CD; ES; U	Mid-Term	Medium	High
Strategy 8: Reduce and Recycle Solid Waste						
S-8.1	Increase Citywide Waste Diversion.	Partnerships; Education and Outreach	CD; PW; U	Mid-Term	Medium	High
Strategy 9: Carbon Sequestration						
C-9.1	Enforce Landscape Tree Requirements at New Developments.	New Ordinances and Code Updates; Education and Outreach	CD; PW	Short-Term	Low	Medium
C-9.2	Develop a Citywide Urban Forestry Program.	Planning	CD; PW	Short-Term	Low	Medium
C-9.3	Develop an Agricultural Land and Open Space Conservation Program.	Planning	CD	Mid-Term	Medium	Low
Notes: CD = Community Development Department; CM = City Manager's Office; ES = Engineering Services; EUSD = Escondido Unified School District; EV = electric vehicle; PW = Public Works Department; SANDAG = San Diego Association of Governments; TDM = transportation demand management; U = Utilities Department; VMT = vehicle miles traveled; ZNE = zero net energy Source: Ascent Environmental 2020.						

4.2 Monitoring and Updates

Implementation of the CAP will require routine updates and maintenance if it is to remain relevant and effective. City staff will need to evaluate and monitor CAP performance and make alterations or amendments if modifications are needed to help achieve the proposed reduction targets. This will include conducting periodic GHG emissions inventory updates and analyzing measure performance.

Inventory Updates

Upon CAP adoption, the City will begin implementing GHG reduction measures, tracking implementation efforts, and applying the CAP Checklist for CEQA streamlining. City staff will annually present summaries of CAP progress to City Council and Planning Commission on achievements to date and provide transparency and promote engagement with the public after CAP adoption. Through the climate planning services offered via its Roadmap Program, SANDAG will assist the City in developing updated GHG emissions inventories every two years. These inventories will be developed using the same methodology provided in this CAP to estimate citywide emissions and will be used to track the City's overall progress in reducing GHG emissions.

Monitoring Reports

City staff will prepare an annual monitoring report that provides updates on CAP implementation progress, GHG reductions achieved to date, and other important milestones in the CAP implementation process. As technologies and markets change and the City implements the measures in the CAP, these reports will be used to track progress and identify measures that need to be improved, adjusted, or removed. The report will also serve to inform City Council, Planning Commission, and the general public about implementation progress on measures, as well as overall progress towards the City's GHG reduction targets.

Full implementation of the GHG reduction measures in this CAP will require City staff to further evaluate the cost, effectiveness, and benefits of each individual measure. Evaluating CAP measure performance entails monitoring the level of community participation, costs, and potential barriers to implementation, as well as actual reductions in fuel consumption, vehicle miles traveled, energy usage, water usage, landfilled waste, or other activities that result in GHG emissions reductions. This evaluation of measure effectiveness in reducing local GHG emissions will assist the City when it updates this CAP to maintain successful measures and reevaluate or replace under-performing ones.

CAP Update

The City will prepare a CAP update every five years, beginning in 2026. CAP updates would reflect the findings and recommendations of the monitoring reports and inventory updates. Future CAP updates would be necessary to account for any new State or federal legislation that may affect the CAP, and to focus on GHG reduction strategies that may have been difficult to implement previously due to a lack of appropriate technologies or high upfront implementation costs.

Figure 4-1 outlines the CAP implementation and monitoring schedule.

Implementation and Monitoring Schedule	
2020	<p>CAP Adopted City Council adopts plan and staff begins to implement CAP measures.</p> <p>Initial Set-up Staff performs initial start-up tasks and develops tools and methodologies for tracking implementation efforts and achievements. Staff will begin administering the CAP Checklist for environmental review of applicable projects.</p>
2020 & 2022	<p>Update GHG Emissions Inventory In coordination with SANDAG, the City will receive an updated 2018 GHG inventory in 2020. If funding is available, SANDAG will continue to provide updated GHG inventories every two years. However, if funding is not available, City staff will work on the development of an updated emissions inventory for the year 2020, to be published by 2022.</p>
2021 - 2025	<p>Monitoring Reports City staff will prepare an annual monitoring report and present the report to City Council and Planning Commission. Each monitoring report will identify CAP implementation efforts to date, assess the CAP's performance in achieving targets, and set implementation milestones for the following year.</p>
2025	<p>Measure Review and CAP Review Based on findings from the monitoring report and inventory updates, City staff will review the performance of each individual measure, evaluate the effectiveness of maintaining existing measures into the future, and identify new technologies and methodologies that did not exist at the time of CAP adoption.</p>
2026	<p>CAP Update Through the review of CAP measures and monitoring, the City will update the CAP to include new measures, remove ineffective measures, and incorporate new technologies and methodologies, as necessary.</p>

Source: Ascent Environmental. 2020.

Figure 4-1 Climate Action Plan Implementation and Monitoring Schedule

4.3 Ongoing Engagement

Continued engagement and participation from the community is critical for implementation of the CAP. This includes individual residents and business, community organizations, developers, property owners, other local and regional government agencies, and others. While this CAP focuses on measures in which the City has a role, many of the measures require partnerships and collaboration. Specific measures, such as increasing transit ridership (**Measure T-3.8**) or increasing citywide waste diversion, (**Measure S-8.1**) require the public to adopt new daily habits that reduce GHG emissions.

The City is also committed to educating the public about the important role individuals play in combating climate change. Effective and long-term climate action and resilience in the City can only be achieved

Most measures will require ongoing public input to achieve maximum GHG reductions. Measures aimed at reducing waste generation, transitioning to alternative modes of transportation, and developing/Updating plans will require public input and support.

through efforts that continue to change the way individuals interact with the environment. Many of the measures in **Chapter 3** are focused on increasing community awareness and participation in existing programs or connecting the community with new information, tools, funding, or resources to take action. Thus, this CAP serves as a resource that supports community-based action.

4.4 Funding Sources

Implementation of GHG reduction measures to increase energy efficiency and reduce the use of non-renewable resources will result in substantial cost-savings for the City and its residents in the long term. The City will incur initial start-up, ongoing administration, staffing, and enforcement costs. The City will be proactive in seeking cost-effective implementation and strategic funding opportunities and developing partnerships to share costs. All measures with potential for significant costs will be brought to City Council for consideration and approval.

To reduce the cost burden of implementation, a variety of funding sources are available to the City. A preliminary summary of funding and financing options are summarized in **Table 4-4**; however, these funding sources and programs are subject to change over time. As the CAP is updated and monitored, the City will need to reevaluate its overall costs and funding sources available. Leveraging funding opportunities would facilitate successful implementation of the GHG reduction measures.

The State’s Climate Change Funding Wizard website provides updates for funding available to cities, residents, and businesses for projects and activities that reduce GHG emissions and improve local resiliency.

Table 4-4 Potential Funding Sources to Support Greenhouse Gas Reduction Measures	
Funding Source	Description
For City Operations	
California Department of Resources Recycling and Recovery (“CalRecycle”)	CalRecycle grant programs allow jurisdictions to assist public and private entities in management of waste streams. Incorporated cities and counties in California are eligible for funds. Program funds are intended to: <ul style="list-style-type: none"> Reduce, reuse, and recycle all waste. Encourage development of recycled-content products and markets. Protect public health and safety and foster environmental sustainability.

Table 4-4 Potential Funding Sources to Support Greenhouse Gas Reduction Measures	
Funding Source	Description
California Air Resources Board (“CARB”)	CARB offers several grants, incentives, and credit programs to reduce on-road and off-road transportation emissions. Residents, businesses, and fleet operators can receive funds or incentives depending on the program. The following programs can be utilized to fund local measures: <ul style="list-style-type: none"> ▪ Air Quality Improvement Program (Assembly Bill [“AB”] 118); ▪ Loan Incentives Program; and ▪ California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project
Transportation-Related Federal and State Funding	For funding measures related to transit, bicycle, or pedestrian improvements, the following funding sources from the Southern California Association of Governments (“SCAG”) may be utilized: <ul style="list-style-type: none"> ▪ Sustainability Planning Grant Program; ▪ Fixed Guide Way Capital Investment Grants; ▪ Job Access and Reverse Commute and New Freedom Programs; and ▪ Enhanced Mobility of Seniors & Individuals with Disabilities
New Development Impact Fees	These types of fees may have some potential to provide funding for proposed programs and projects, but such fees are best implemented when the real estate market and overall regional economic conditions are strong.
General Obligation Bond	A general obligation bond is a form of long-term borrowing and could be utilized to fund municipal improvements.
Other Funding Mechanisms for Implementation	Grants may be available from the Strategic Growth Council (“SGC”) or the State Department of Conservation (“DOC”) to fund sustainable community planning, natural resource conservation, and development, and adoption.
For Community Operations	
San Diego Gas & Electric (“SDG&E”)	SDG&E is one of the utilities participating in the Go Solar initiative. A variety of rebates are available for existing and new homes. Photovoltaics, thermal technologies, and solar hot water projects are eligible. Single-family homes, commercial development, and affordable housing are eligible.
Property-Assessed Clean Energy (“PACE”)	The PACE finance program is intended to finance energy and water improvements within a home or business through a land-secured loan, and funds are repaid through property assessments. Municipalities are authorized to designate areas where property owners can enter into contractual assessments to receive long-term, low-interest loans for energy and water efficiency improvements, and renewable energy installation on their property. Financing is repaid through property tax bills. SANDAG has implemented the Home Energy Renovation Opportunity (“HERO”; a PACE program) in San Diego County to assist residents in financing residential energy efficiency and solar retrofits.
Clean Vehicle Rebate Project	Individual, fleet operators, local government entities, and businesses can apply for rebates for purchases of plug-in electric hybrids (“PHEVs”), battery electric vehicles (“BEVs”), fuel-cell electric vehicles (“FCEVs”), and other non-highway, motorcycle and commercial BEVs.
Energy Upgrade California	Program is intended for home energy upgrades. Funded by the American Recovery and Reinvestment Act, California utility ratepayers, and private contributions. Utilities administer the program, offering homeowners the choice of one of two upgrade packages—basic or advanced. Homeowners are connected to home energy professionals and can receive up to \$4,000 back on an upgrade through the local utility. Rebates, incentives, and financing are available.

Table 4-4 Potential Funding Sources to Support Greenhouse Gas Reduction Measures

Funding Source	Description
Federal Tax Credits for Energy Efficiency	Tax credits for energy efficiency can be promoted to residents.
Energy Efficient Mortgages (“EEM”)	An EEM is a mortgage that credits a home’s energy efficiency in the mortgage itself. Residents can finance energy saving measures as part of a single mortgage. To verify a home’s energy efficiency, an EEM typically requires a home energy rating of the house by a home energy rater before financing is approved. EEMs typically are used to purchase a new home that is already energy efficient, such as an ENERGY STAR® qualified home.
Private Funding	Private equity can be used to finance energy improvements, with returns realized as future cost savings. Rent increases can fund retrofits in commercial buildings. Net energy cost savings can fund retrofits in households. Power Purchase Agreements (“PPA”) involve a private company that purchases, installs, and maintains a renewable energy technology through a contract that typically lasts 15 years. After 15 years, the company would uninstall the technology or sign a new contract. On-Bill Financing (“OBF”) can be promoted to businesses for energy-efficiency retrofits. Funding from OBF is a no-interest loan that is paid back through the monthly utility bill. Lighting, refrigeration, heating, ventilation, and air conditioning, and light-emitting diode streetlights are all eligible projects.
Community Choice Aggregation (“CCA”) Revenue	Revenue generated by a local CCA program may be used to fund or incentivize GHG reduction measures.
Housing Rehabilitation Loan Programs	Critical Home Repair Program through Habitat for Humanity provides home improvements for low-income homeowners to improve home efficiency, safety, and accessibility. The U.S. Department of Housing and Urban Development (“HUD”) Community Development Block Grant (“CDBG”) program provides communities with resources to address redevelopment needs, specifically for home rehabilitation. HUD also administers the HOME program, providing grants to improve affordable housing opportunities and conditions.

General Funding and Staff Capacity

CivicSpark Program	Supports sustainability-focused research, planning, and implementation projects throughout California by providing public agencies and other organizations with capacity building support and community engagement. This program provides volunteer engagement through AmeriCorps fellows to provide added staff capacity for eleven months
California Climate Investments (“CCI”)	CCI is the statewide initiative that provides funds from the Cap-and-Trade program for GHG reducing projects and programs. Funds can support a variety of projects including affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, sustainable agriculture, recycling, and more. Numerous State programs listed above are funded by CCI; however, the program continues to evolve and is updated by the State periodically to include new or modified programs.

Source: Ascent Environmental 2020