

# Chapter VI Implementation



Climate change is one of the most critical challenges facing society today. Overcoming climate change will require substantial efforts from government, organizations, and individuals. To meet its greenhouse gas (GHG) emissions reduction targets, the City needs to prioritize actions; mobilize residents, business owners and staff; and work with neighboring jurisdictions and regional agencies to create workable solutions. This chapter describes the City's approach to implementing the Climate Action Plan (CAP) and provides actions to accompany each measure presented in Chapter V.

## Approach

The City recognizes climate change as a threat to the community's health, safety, and welfare. Reducing emissions and adapting to a changing climate are not simply good ideas, they are global imperatives. Given the urgency of the challenge at hand, the City places great emphasis on implementation of CAP measures.

Translating the measures into on-the-ground results requires tangible action steps, reliable funding, and the flexibility to change course as economic, political, and environmental conditions demand.

This chapter contains the following sections:

- *Implementation Matrices:* An implementation matrix is provided for each CAP measure that describes recommended actions, timeframes, performance metrics, and responsible departments and agencies.
- *Funding Strategies:* This section describes funding strategies available to implement CAP measures and actions. Potential future financing tools are also identified.
- *Plan Adaptation and Evolution:* This section discusses the need for the CAP to be updated and amended over time to ensure that it remains relevant as the science of climate change continues to emerge and climate action policy evolves over time.

# Implementation Matrices

The following matrices provide implementation strategies for each quantified CAP measure to assist City staff and other agencies responsible for carrying out CAP actions. The matrices also enable the City Council and the public to track key actions and deadlines and monitor progress. Each matrix provides the following information:

- *Action Steps:* The first table identifies the individual action steps needed to support each measure. Timeframes, responsible department(s), coordination requirements, and likely funding sources for each action are provided.
- *Performance Indicators, Monitoring, and Reporting Requirements:* The second table identifies indicators and performance standards to evaluate the performance of each measure and establishes monitoring and reporting requirements.

Even well-intended policies can be difficult to turn into reality. Because achieving the established emissions reduction target is vitally important, the City has identified individual actions that support each measure. Providing specific action steps for each measure improves the odds of successful implementation by forming clear lines of responsibility, establishing schedule priorities, defining likely funding sources.

Evaluating the performance of each measure is crucial for Albany to achieve its GHG reduction targets. While the City employed rigorous methods to estimate the emission reduction capacity of each measure, such estimations are inherently imprecise due to the wide range of assumptions employed in such calculations. As time progresses and climate change science advances, the City should evaluate the actual performance of each measure on an annual basis. Such evaluation may be accomplished by comparing actual performance to the performance standards established within this section. Ideally, the identified actions should cause measures to meet or exceed these standards. If they do not, the City should examine ways to increase measure performance or create new measures capable of making up for missed emission reductions.

The City's Environmental Resources Division will track and report progress toward achieving the City's GHG emission reduction target of 25% below 2004 levels by 2020. The Division will provide annual reports to the City Council on the progress made toward achieving the reduction target as a whole, and for each quantified measure. The report will describe the following:

- Estimated GHG reductions for current year and to-date
- Implementation costs
- Cost savings and payback for given strategies
- Co-benefits realized
- Remaining barriers to implementation

<b>Measure TL 1.1: Create complete streets throughout the City.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Revise standard street cross-sections within the General Plan Circulation Element to ensure that all roads accommodate the needs of pedestrians, bicyclists, public transit riders, and automobile drivers.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>B</b>	Revise and adopt the Bicycle Master Plan to incorporate a wider extent of Complete Streets, as described in Measure TL 1.1.	Before July 31, 2012	Planning & Zoning (General Plan Update)
<b>C</b>	Construct Stage 1 bicycle infrastructure improvements described in the current Bicycle Master Plan	Before January 1, 2015	Transportation
<b>D</b>	Construct Stage 2 bicycle infrastructure improvements to achieve Complete Streets throughout the City.	Before January 1, 2020	Transportation
<b>E</b>	Conduct a pedestrian obstacle study.	Before September 1, 2010	Transportation
<b>F</b>	Prepare and adopt a Pedestrian Master Plan.	Before December 31, 2012	Planning & Zoning
<b>G</b>	Construct pedestrian improvements identified in the pedestrian obstacle study and Pedestrian Master Plan.	Before January 1, 2017	Transportation
<b>Progress Indicators</b>		<b>Target</b>	
i	Bicycle network coverage.	30% bicycle network coverage by 2015 90% bicycle network coverage by 2020	
ii	Percentage of street curbs with curb cuts.	100% by 2012	
iii	Pedestrian and bike mode share of commute trips.	15% combined by 2020	

<b>Measure TL 1.2: Install bike racks in commercial and civic areas of the City where racks do not currently exist.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Conduct bicycle parking analysis in City's commercial and civic areas.	Before December 31, 2011	Transportation
<b>B</b>	Install bicycle parking facilities in underserved areas (20% of total to be Class I or II bicycle parking facilities).	Before July 31, 2012	Transportation
<b>C</b>	Adopt ordinance that requires new development to provide adequate bicycle parking for tenants and customers; and requires businesses with more than 50 employees to provide end-of trip facilities including showers, lockers, and Class I bicycle storage facilities.	Before July 31, 2012	City Council Transportation
<b>Progress Indicators</b>		<b>Target</b>	
i	Bicycle parking-to-auto parking ratio.	50% bicycle parking by 2015 100% bicycle parking by 2020	
ii	Percentage of businesses with over 50 employees with end-of-trip facilities.	100% by 2020	

**ADMINISTRATIVE DRAFT**

<b>Measure TL 1.5:</b> Encourage additional neighborhood-serving commercial uses and mixed-use development within the City's existing commercial districts. Strive to provide access to daily goods and services within ¼-mile of residences.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Conduct study that examines methods to attract additional neighborhood-serving uses and mixed-use development to commercial districts.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>B</b>	Develop small business incentive programs to encourage new neighborhood-serving uses.	Before December 31, 2012	Community Development
<b>C</b>	Conduct audit of land use, zoning, development standards, and other regulations that may act as barriers to neighborhood serving businesses and mixed-use development.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>D</b>	Create new Economic Development element in General Plan.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of residential parcels within ¼ mile of three or more neighborhood amenities.	55% by 2015 65% by 2020	

<b>Measure TL 2.2:</b> Work with AC transit to provide bus stops with safe and convenient bicycle and pedestrian access and essential improvements such as shelters, route information, benches, and lighting.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Consult with AC Transit to ensure Albany bus stops provide shade, weather protection, seating, lighting and route information.	Before December 31, 2017	Transportation
<b>B</b>	Conduct study of bicycle and pedestrian access to transit stations.	Before July 31, 2012	Transportation
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of bus stops with shade, weather protection, seating, lighting, and route information.	80% by 2015 100% by 2017	

# ADMINISTRATIVE DRAFT

<b>Measure TL 3.1:</b> Update specific plans, design guidelines, zoning regulations, and development standards to promote high-quality, mixed-use, pedestrian- and transit-oriented development in the San Pablo Commercial and Solano Commercial districts.			
Action		Timetables	Responsibility
<b>A</b>	Conduct sustainability audit to identify regulatory, structural or market barriers to sustainable, climate-friendly development within commercial and high density residential districts.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>B</b>	Evaluate the residential and commercial parking requirements and the height and setback requirements for commercial and high density residential uses.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>C</b>	Update the San Pablo Design Guidelines and San Pablo Streetscape Master Plan to reflect the City’s desire to create a pedestrian- and transit-oriented environment.	Before January 1, 2013	Planning & Zoning
Progress Indicators		Target	
i	Percentage of new development projects in San Pablo Commercial District that achieve a floor area ratio of 1.5 or higher (approximately 75% of maximum allowable FAR).	100% by 2020	
ii	Percentage of new development projects in Solano Commercial District that achieve a floor area ratio of 0.95 or higher (approximately 75% of maximum allowable FAR).	100% by 2020	

<b>Measure TL 3.4:</b> Provide public education about benefits of well-designed, higher-density housing and relationships between land use and transportation.			
Action		Timetables	Responsibility
<b>A</b>	Develop comprehensive public outreach campaign that educates residents and businesses about ways to reduce GHG emissions.	Before July 31, 2010	Environmental Resources
<b>B</b>	Develop specific outreach program to inform residents, businesses, and property owners about the benefits of well designed infill development.	Before January 1, 2011 Ongoing	Environmental Resources
<b>C</b>	Conduct workshops that integrate public input and concerns into the infill development design process.	Before January 1, 2011 Ongoing	Planning & Zoning Environmental Resources
Progress Indicators		Target	
i	NA	NA	

**ADMINISTRATIVE DRAFT**

<b>Measure TL 4.1:</b> Improve the jobs-housing balance within the City and work with ABAG and neighboring cities to improve the balance within existing transit corridors.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Create employment development program.	Before July 31, 2010	Community Development
<b>B</b>	Explore redevelopment potential of Commercial Mixed Use District into job rich business park.	Before December 31, 2011	Planning & Zoning (General Plan Update)
<b>C</b>	Collaborate with neighboring communities to establish employment opportunities along transit corridors.	Before January 1, 2011	Planning & Zoning (General Plan Update)
<b>Progress Indicators</b>		<b>Target</b>	
i	Jobs/housing ratio.	0.70 by 2015 0.80 by 2020	

<b>Measure TL 4.4:</b> Create and implement a transportation demand management program that reduces weekday peak period single-occupancy automobile commute trips by at least 25%.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Develop and adopt a trip reduction ordinance to reduce single-occupancy automobile commute trips by 25% by 2020.	Before December 31, 2011	City Council Transportation
<b>B</b>	Facilitate the establishment of an Albany Transportation Management Association (ATMA) for community employers.	Before July 31, 2012	Transportation
<b>Progress Indicators</b>		<b>Target</b>	
i	Percent reduction in single-occupancy automobile commute trips.	15% reduction by 2015 20% reduction by 2020	
ii	Percentage of Albany employers with over 10 employees who belong to ATMA.	100% by 2015	

# ADMINISTRATIVE DRAFT

<b>Measure TL 5.1: Create a commercial district parking fee.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Develop a 75¢ per hour parking fee for commercial districts within the community.	Before July 31, 2015	Transportation Planning & Zoning
<b>B</b>	Establish a free residential parking permit system for blocks adjacent to commercial districts.	Before July 31, 2012	Transportation Planning & Zoning
<b>C</b>	Work with adjacent communities in order to coordinate parking fee rates.	Ongoing	Transportation Planning & Zoning
<b>Progress Indicators</b>		<b>Target</b>	
i	Increase in percentage of residents that walk or bike to neighborhood commercial districts for shopping or daily errands.	40% by 2015 60% by 2020	
ii	Decrease in community-wide VMT.	5% decrease by 2020	

<b>Measure BE 1.1: Install cost-effective renewable energy systems on all city buildings and purchase remaining electricity from renewable sources.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Conduct energy audits of all municipal buildings.	Before December 31, 2010	Building
<b>B</b>	Evaluate the potential to locate cost-effective renewable energy systems on City properties.	Before July 31, 2012	Environmental Resources Building
<b>C</b>	Purchase remaining energy from renewable sources or from PG&E's <i>Climate Smart Program</i> .	Before January 1, 2015	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of City's building energy saved through energy retrofits and conservation measures.	20% by 2015 40% by 2020	
ii	Percentage of City's building electricity from renewable sources.	100% by 2015	

<b>Measure BE 1.2: Install building performance data (energy and water) displays in all City buildings.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Install electronic building performance displays in all publically accessible buildings.	Before December 31, 2014	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	See Measure BE 1.1.	See Measure BE 1.1	

**ADMINISTRATIVE DRAFT**

<b>Measure BE 2.1: Develop and implement point-of-sale residential energy and water efficiency upgrade requirements.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Adopt a Residential Energy Conservation Ordinance requiring point-of-sale energy efficiency upgrades.	Before July 31, 2010	City Council Planning & Zoning
<b>B</b>	Work with Stopwaste.org to verify that the required efficiency upgrade package achieves at least 20% improvement in average Albany home.	Before July 31, 2012	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of residential units that have implemented energy efficiency improvements since 2004.	20% of single-family units by 2015 32% of single-family units by 2020 15% of multi-family units by 2015 24% of multi-family units by 2020	

<b>Measure BE 2.2: Identify and develop financial incentives and low-cost financing products and programs that encourage investment in energy efficiency and renewable energy within existing residential buildings.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Evaluate various financing products that would encourage property owners to invest in energy efficiency upgrades and renewable energy systems in existing homes.	Before July 31, 2010	Finance Building
<b>B</b>	Work with other agencies, utilities and private lenders to develop cost effective financing products.	Before December 31, 2010	Finance
<b>Progress Indicators</b>		<b>Target</b>	
i	See Measure BE 2.1.	See Measure BE 2.1	

<b>Measure BE 2.3: Identify and implement opportunities to improve efficiency of rental units.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Conduct review of various municipalities' multi-family energy efficiency improvement programs.	Before December 31, 2011	Planning & Zoning
<b>B</b>	Adopt ordinance that requires landlords to provide information on average utility bills per unit to existing and potential tenants and to the City.	Before July 31, 2012	City Council Environmental Resources
<b>C</b>	Create energy efficiency rating system for all rental properties within Albany.	Before January 1, 2015	Environmental Resources
<b>Progress Indicators</b>		<b>Target</b>	
i	NA	NA	

# ADMINISTRATIVE DRAFT



<b>Measure BE 3.1:</b> Develop and implement point-of-sale commercial energy efficiency upgrade requirements.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Adopt a Commercial Energy Conservation Ordinance requiring point-of-sale energy efficiency upgrades.	Before July 31, 2010	City Council Planning & Zoning
<b>B</b>	Verify that the required efficiency upgrade package achieves at least 12% improvement in average Albany commercial building.	Before July 31, 2012	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of commercial units that have implemented energy efficiency improvements since 2004.	15% of commercial units by 2015 30% of single-family units by 2020	

<b>Measure BE 3.2:</b> Identify and develop financial incentives and low-cost financing products and programs to encourage investment in energy efficiency and renewable energy within existing commercial buildings.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	See Measure BE 2.2.	See Measure BE 2.2	See Measure BE 2.2
<b>Progress Indicators</b>		<b>Target</b>	
i	See Measure BE 3.1.	See Measure BE 3.1	

<b>Measure BE 4.1:</b> Ensure new construction complies with California Green Building Code Standards.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Amend the Albany Green Building Ordinance to incorporate the energy and water efficiency standards contained in Chapter 5 and 6 of the 2008 California Green Building Code as the required standards for energy and water efficiency for new construction.	Before December 31, 2010	City Council Building
<b>Progress Indicators</b>		<b>Target</b>	
i	NA	NA	

**ADMINISTRATIVE DRAFT**

<b>Measure BE 4.2:</b> Require roofing and street, parking lot, and sidewalk paving to use materials with an albedo of 0.3 (30%) or greater.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Update the Building Code to require new roofing and street, parking lot, and sidewalk paving to use material with an albedo of 0.3 or higher.	Before December 31, 2011	City Council Building
<b>Progress Indicators</b>		<b>Target</b>	
i	NA	NA	

<b>Measure BE 5.1:</b> Develop a comprehensive renewable energy financing and informational program for residential and commercial uses.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Develop renewable energy financing program with Alameda County and participating cities.	Before December 31, 2011	Finance Environmental Resources
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of residential and commercial buildings that have installed photovoltaic or solar hot water heaters.	25% by 2015 50% by 2020	

<b>Measure BE 5.2:</b> Identify and facilitate solar energy EmPowerment districts in commercial, industrial, and mixed-use portions of City.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Define Solar EmPowerment Districts within the community and identify solar generation opportunity sites (e.g., buildings and parking lots).	Before July 31, 2010	Planning & Zoning Environmental Resources
<b>B</b>	Conduct analysis of potential regulatory, structural, and market barriers to installation of photovoltaic systems on commercial buildings within defined EmPowerment Districts.	Before December 31, 2010	Building Environmental Resources
<b>C</b>	Develop outreach and technical assistance programs to facilitate installation of solar systems.	Before July 31, 2011	Environmental Resources
<b>D</b>	Streamline permitting process for photovoltaic system installation in EmPowerment Districts.	Before July 31, 2011	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of eligible buildings and parking lots with photovoltaic systems within EmPowerment District.	25% by 2015 40% by 2020	

# ADMINISTRATIVE DRAFT

<b>Measure BE 6.2: Partner with other neighboring cities and PG&amp;E to fast-track smart grid technology in Albany.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Partner with PG&E and develop community smart grid integration plan.	Before December 31, 2011	Environmental Resources Public Works
<b>B</b>	Develop outreach program that informs property owners and businesses about benefits of smart grid and smart appliances.	Before July 31, 2012	Environmental Resources
<b>Progress Indicators</b>		<b>Target</b>	
i	Percent of buildings with Smart Meters.	100% by 2015	
ii	Percent of communitywide energy savings from Smart Grid Integration.	4% by 2020	

<b>Measure BE 6.3: Work with Alameda County to convert all street lights to LED bulbs or LED-solar systems.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Prepare report on energy and cost savings associated with street light conversion to LED technology and provide to Alameda County.	Before December 31, 2010	Public Works Environmental Resources
<b>B</b>	Partner with Alameda County and convert all existing streetlights to LED bulbs.	Before December 31, 2014	Public Works
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of streetlights converted to LED technologies.	100% by 2014	

<b>Measure WW 1.1: Establish a zero-waste target for 2030 and work with Alameda County, neighboring cities, and other organizations to leverage the zero-waste effort.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Adopt a resolution to achieve 90% waste reduction and diversion by 2030.	Before December 31, 2011	City Council Environmental Resources
<b>B</b>	Expand outreach programs to maximize participation in waste reduction and diversion programs.	Before July 31, 2011	Environmental Resources
<b>C</b>	Adopt a resolution of support that encourages the State and federal governments to create a voluntary <i>Do Not Mail Registry</i> to reduce junk mail deliveries.	Before July 31, 2010	City Council Environmental Resources

**ADMINISTRATIVE DRAFT**

<b>Measure WW 1.1:</b> Establish a zero-waste target for 2030 and work with Alameda County, neighboring cities, and other organizations to leverage the zero-waste effort.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>D</b>	Adopt an ordinance that requires all household and commercial food scraps and food-soiled paper to be placed in organics carts, all commercial food service providers to use recycling and organics services, and the City's waste collector to minimize collection route distances and use fuel efficient vehicles.	Before December 31, 2010	City Council Environmental Resources
<b>E</b>	Adopt an ordinance that requires a disposable shopping bag fee.	Before December 31, 2010	City Council Environmental Resources
<b>F</b>	Develop resolution of support to encourage State and federal government to pass legislation that requires extended producer responsibility and improves recyclability of products and packaging.	Before December 31, 2010	City Council Environmental Resources
<b>Progress Indicators</b>		<b>Target</b>	
i	Community waste diversion rate	75% by 2015 80% by 2020 90% by 2030	

<b>Measure WW 2.2:</b> Require residential remodels and renovations to improve plumbing fixture and fixture-fitting water efficiency by 40% above the California Building Standards Code water efficiency standards.			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Update Building Code to require all remodels and remodels to improve the water efficiency of fixtures and fixture fittings by 40% above the California Building Standards water efficiency standards.	Before December 31, 2010	City Council Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of residential units that have implemented water efficiency improvements since 2004.	53% by 2020	

# ADMINISTRATIVE DRAFT

<b>Measure WW 2.3: Encourage use of graywater and rainwater collection in existing residential and commercial uses.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Adopt an ordinance that enables property owners to construct graywater systems and rainwater collection systems that conform to Title 24 Part 5 of the California Plumbing Code.	Before December 31, 2010	City Council Public Works
<b>B</b>	Create outreach program that encourages businesses and residents to construct graywater and rainwater collection systems on their properties.	Before July 31, 2011	Environmental Resources
<b>C</b>	Provide City staff training regarding State code requirement for graywater systems in order to help interested parties develop systems.	Before July 31, 2011	Building
<b>Progress Indicators</b>		<b>Target</b>	
i	Percentage of residential and commercial properties that have implemented graywater and or rainwater collection systems since 2004.	50% by 2020	

<b>Measure GI 1.1: Enhance the Urban Forestry Program to reduce building energy consumption and provide carbon sequestration.</b>			
<b>Action</b>		<b>Timetables</b>	<b>Responsibility</b>
<b>A</b>	Expand Urban Forestry Program funding to support increased tree planting and maintenance capacity.	Before July 31, 2010	City Council Urban Forestry
<b>B</b>	Plant 500 new trees per year.	Ongoing	Urban Forestry
<b>C</b>	Develop outreach program to encourage residents and businesses to plant additional trees on private property.	Before July 31, 2011	Urban Forestry Environmental Resources
<b>Progress Indicators</b>		<b>Target</b>	
i	Number of trees planted per year.	500 trees per year	
ii	Number of total trees planted.	5,000 by 2020	

**ADMINISTRATIVE DRAFT**

# Funding Strategies

This section describes potential funding sources and strategies that Albany could pursue to cover costs related to the CAP. Though the City will not be the sole entity paying for CAP measures, only the relative likely public costs of each measure have been identified, not those borne by individuals or businesses. The estimated costs to the City for each measure are presented in Appendix X, with an indication of whether local residents or businesses would also be required to pay a direct cost for each measure.

The CAP will require strategic public funding by the City, by regional government agencies, and by the state and federal governments to provide capital projects, incentives, outreach/education, and new regulations necessary to achieve the plan's objectives. To decrease costs and to improve the plan's efficiency, actions should be pursued concurrently whenever possible. For example, the City should pursue actions related to land use and transportation together during its upcoming General Plan update.

Funding sources have not been identified for all actions. However, numerous state and regional grants are available to assist with funding some of the more expensive strategies, such as capital improvement projects related to transportation. In addition, Albany can and should partner with Alameda County and other nearby jurisdictions to administer joint programs as feasible. As many businesses in the Bay Area are leaders in renewable energy and green infrastructure, potential opportunities to partner with the private sector to decrease the costs of implementation abound. Finally, many of the measures and actions have the potential to be self-financing if properly designed and implemented.

## State and Regional Grants

Of all of the strategies in the CAP, the Transportation and Land Use Strategy is the most expensive, as it requires the creation of new pedestrian and bicycle infrastructure. Fortunately, numerous regional and state grants are available to assist with transportation improvements.

## Transportation Fund for Clean Air

The Transportation Fund for Clean Air (TFCA) is a Bay Area Air Quality Management District (BAAQMD) grant program funded by a surcharge on motor vehicles registered in the Bay Area. The purpose of the TFCA program is to provide grants to support Bay Area projects that will decrease motor vehicle emissions and thereby improve air quality. It funds a wide range of project types, including the purchase or lease of clean air vehicles; shuttle and feeder bus service to train stations; ridesharing programs to encourage carpool and transit use; bicycle facility improvements such as bike lanes, bicycle racks, and lockers; arterial management improvements to speed traffic flow on major arterials; smart growth projects; and projects that enhance the availability of transit information.

## Safe Routes to Transit

Regional Measure 2, the \$1.00 bridge toll increase, funds projects that enhance pedestrian and bicycle access to transit stations. TransForm is administering the program. Funding cycles are approximately every two years.

## Livable Communities & Housing Incentive Program

The Metropolitan Transportation Commission (MTC) Transportation for Livable Communities (TLC) program provides technical assistance and capital grants to help cities, neighborhoods, transit agencies, and nonprofits develop transportation-related projects that improve walking and bicycle access to public transit stations, major activity centers, and neighborhood commercial districts.

## Safe Routes to Schools

Safe Routes to School is an international movement focused on increasing the number of children who walk or bicycle to school by funding projects that remove barriers that currently prevent them from doing so. Those barriers include lack of infrastructure, unsafe infrastructure, lack of programs that promote walking and bicycling through education/encouragement programs aimed at children, parents, and the community. In California, two separate Safe Routes to School programs are available. One is the State program referred to as SR2S. The other is the federal program referred to as SRTS. Both fund qualifying infrastructure projects.

## Alameda County Transportation Improvement Authority Measure B

Measure B (2000) funds millions of dollars worth of local transportation improvements in every Alameda County jurisdiction. These are the most flexible Measure B funds and can be used for local transportation priorities. Viable uses of Measure B funds include street and road improvements; transit, bicycle, and pedestrian improvements beyond those funded with Measure B Bicycle and Pedestrian Funds; and encouraging transit use instead of cars.

## Caltrans Planning Grants

Community Based Transportation Planning (CBTP) grants fund transportation and land use planning that promotes public engagement, livable communities, and a sustainable transportation system that includes mobility, access, and safety. The maximum award is \$300,000, and a local match of 20 percent of the grant request is required.

## Partnerships with Private Companies

The Bay Area is home to numerous private companies who provide renewable energy or green infrastructure. The success of the CAP depends in part on collaboration between these businesses and the City and/or public. Both Better Place (located in Palo Alto) and Coulomb Technologies (located in Campbell) are

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developing electric plug-in auto charging station infrastructure throughout the Bay Area. Pacific Gas and Electric (PG&E) and the East Bay Municipal Utility District (EBMUD) also administer numerous energy efficiency and water conservation programs that the City can leverage and help advertise to residents. Solar companies will also be an important asset to the CAP, as the advent of the Power Purchase Agreement (PPA) enables businesses, residents, and the City to install solar panels and access solar power at no cost. Partnering with these businesses, as well as new businesses as they arise, will enable the City to both save money and provide the community with the most up-to-date green infrastructure.

## Power Purchasing Agreements

Solar power has become increasingly more accessible and cost-effective due to Power Purchase Agreements (PPAs). In a PPA, a private company or third party installs the solar panels at no cost to the consumer and maintains ownership of the installed panels, selling customers the power the panels produce on a per-kilowatt-hour basis at a locked-in rate. The locked-in rate is often lower than what customers pay their utility today, and the rate increases at a fixed percentage (usually 3.5% or 3.9%) annually. In addition to installing the panels, the third party monitors and maintains the systems to ensure that they keep working. The contract period for a PPA is typically 15 years, at which point the third party will either uninstall the panels or sign a new agreement with the building owner.

## Partnerships with Other Jurisdictions

As Albany is a relatively small city, partnering with neighboring jurisdictions is another key implementation strategy supporting the CAP. The City of Berkeley is the primary potential partner the City will pursue given both Berkeley's proximity to Albany, and its own dedication and leadership addressing GHG emissions and climate change. Berkeley has been identified in the CAP as a potential partner in creating a food industry grease-to-biodiesel recycling program, and obtaining AC Transit EasyPasses for City employees, as the City of Albany alone is too small to qualify. Albany will also seek to partner with AC Transit to improve the public transit system, and with Alameda County to improve the energy efficiency of the City street lights.

## New Financing Products and Programs

There are numerous financing products and programs the City could establish to encourage homeowners and business owners to invest in energy efficiency. The potential products include on-bill financing, low interest loans, and energy efficient mortgages. There is great variability in the potential structure of the programs and products. However, all three establish a lender/borrower relationship in which the City, utility or private lender loans the building owner money to pay for upgrades and the amount loaned is paid back over time. The cost (or payback) to the City is wholly dependent on how much the City intends to subsidize interest rates.



Energy savings could also be financed through a (potentially tax-exempt) municipal bond issue or through a Local Improvement District (LID). In the case of the bond, the City would administer a revolving loan fund with the bond proceeds. The goal is to provide capital for energy efficiency upgrades at the lowest cost of capital possible. With a LID, the City will pay the upfront costs and property owners will repay those costs over time through a special assessment on their property tax bills.

## Self-Financing Strategies

CAP measures include incentives, as well as regulations or fees to change the community's behavior. It is important that the fees established in the CAP be self-financing. For example, the amount of the tiered residential parking fee that increases with vehicle size should be large enough to pay for both program creation and on-going implementation.

A GHG Reduction Development Impact Fee can also contribute to CAP implementation. This fee will be based on a clear nexus between new development's negative contribution GHG emissions. The money raised through the fee would then be used to implement CAP measures determined to best mitigate the negative impact of the new development.

## Plan Adaptation and Evolution

The 2009 CAP represents the City's best attempt to create an organized, community-wide response to the threat of climate change at the time of preparation. The field of climate action planning is rapidly evolving. Over the next decade, new information about climate change science and risk is likely to emerge, new GHG reduction technologies and innovative municipal strategies will be developed, and State and federal legislation are likely to advance. In order to remain relevant and to be as effective as possible the CAP must evolve over time.

In combination with the annual monitoring and reporting requirements for individual measures and actions outlined in the matrices above, the CAP as a whole will be reviewed and modified every three years to identify potential plan update needs. These reviews will evaluate improvements to climate science, explore new opportunities for GHG reduction and climate adaptation, and respond to changes in climate policy. As many of Albany's CAP measures will be implemented through the City's upcoming General Plan update, the first CAP review should occur following adoption of the General Plan. Furthermore, the CAP should be identified as a implementation program supporting achievement of land use, circulation, and conservation policies within the General Plan.

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