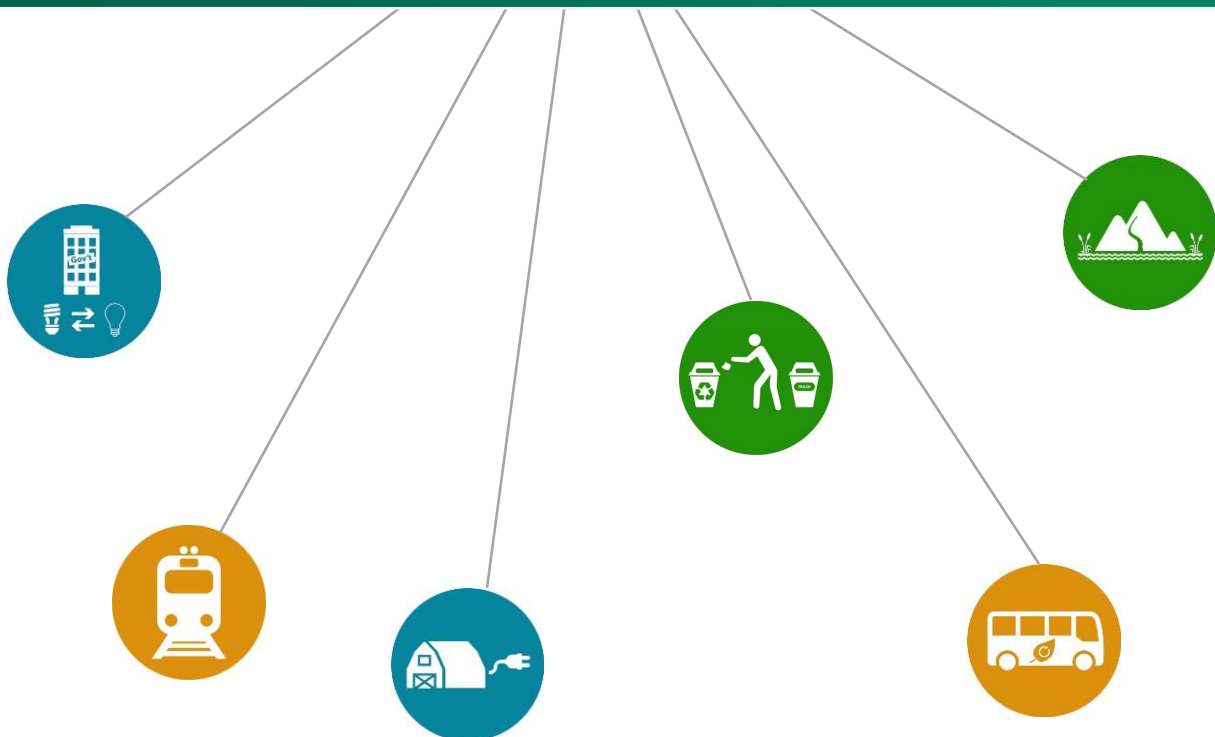




Cap and Trade: Investing in California Communities



About the Institute for Local Government

The Institute for Local Government is the nonprofit research and education affiliate of the League of California Cities, the California State Association of Counties and the California Special Districts Association. Its mission is to promote good government at the local level with practical, impartial and easy-to-use resources for California communities.

The Institute's current program areas include:

- Local Government Basics
- Public Engagement
- Ethics & Transparency
- Sustainable Communities
- Collaboration and Partnerships



The Beacon Program

The Beacon Program was launched by the Institute for Local Government (ILG) in 2009 to mobilize cities and counties to take voluntary action to address climate change. The program helps a growing number of California communities (currently 72 jurisdictions representing more than 25% of the state's population) to take action and measure their progress in saving energy, promoting sustainability and reducing greenhouse gas (GHG) emissions.

The Beacon Program focuses on five areas of accomplishment:

SPOTLIGHT AWARD AREAS OF ACCOMPLISHMENT	SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
Agency GHG Reductions	5% Reduction	10% Reduction	20% Reduction
Community GHG Reductions			
Agency Energy Savings			
Natural Gas Savings			
Sustainability Best Practice Activities	1 in each of 10 categories	3 in each of 10 categories	6 in each of 10 categories
FULL BEACON AWARD	Silver Level Beacon Award	Gold Level Beacon Award	Platinum Level Beacon Award

Participants in the program receive valuable support and encouragement from ILG staff and its nonprofit and utility partners. The team helps local agencies collect and organize data in an effort to support ongoing sustainable actions and advance participants' achievements within the program. Visit www.ca-ilg.org/BeaconAward to apply and learn more about current participants and program resources.

Cap and Trade

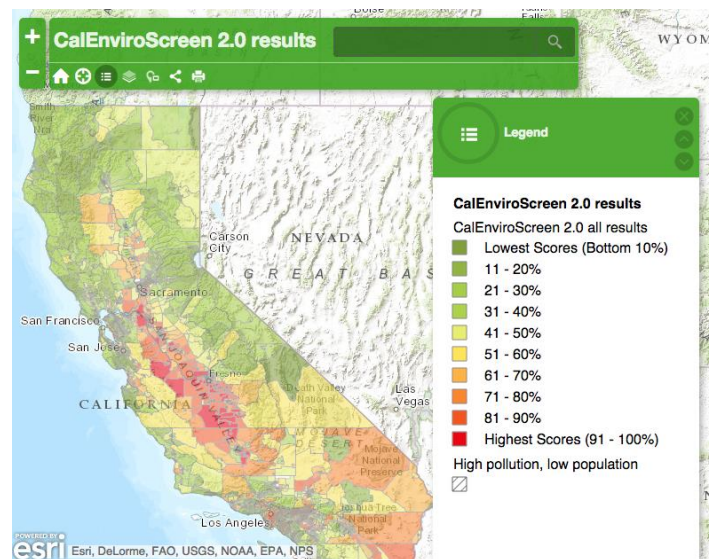
The California Global Warming Solutions Act of 2006, AB 32, is a multi-year program to reduce Greenhouse Gas (GHG) emissions in California to 1990 levels by 2020. One key strategy to achieve this goal is a 'cap and trade' market system. The 'cap' creates a limit on carbon dioxide equivalent emissions, while a corresponding number of allowances within the cap can be 'traded.' The allowances are purchased by utilities and businesses at quarterly auctions. Over time, as the cap lowers, businesses that aggressively reduce emissions can trade their surplus allowances to firms that find it more expensive to reduce emissions.

The auction proceeds are then used to further the goals of AB 32. Cap and trade auctions began in November 2012. The majority of auction proceeds are required by the California Public Utilities Commission (PUC) to benefit ratepayers of investor owned utilities. The smaller 'state portion' of auction proceeds is deposited into the Greenhouse Gas Reduction Fund (GGRF). GGRF investments are primarily targeted at clean transportation and sustainable community plans, corresponding with the impact transportation has on GHG emissions. Improvements to energy efficiency and natural resources management also contribute, but at lesser levels than transportation oriented factors.

The sale of cap and trade allowances generates substantial revenue—estimated at between \$2 and \$3 billion per year – which is dedicated to further reducing GHG emissions and achieving other co-benefits such as pollution reduction, public health improvements and economic growth. Revenue from cap and trade is allocated by the Legislature to a variety of programs many of which can be an important source of funding for local governments to achieve their sustainability goals. Approximately 60 percent of annual GGRF revenues have been “continuously appropriated” to a variety of state programs; the remaining 40 percent of revenues are subject to annual legislative appropriation through the state budget.

GHG and Disadvantaged Communities

All cap and trade funding programs are required to reduce GHG emissions. Additionally, SB 535 (de León, Chapter 830, Statutes of 2012) requires that 25 percent of all non-utility cap and trade revenues be used to benefit disadvantaged communities (DAC), and 10 percent to be spent within the most disadvantaged. Individual programs may exceed or be less than the 25% requirement for DACs, but on average the programs as a whole must meet the statewide requirement. The determination of DAC status is based on the [CalEnviroScreen](#), a model administered by CalEPA that combines economic data with information on pollution and other environmental impacts.



Funding for Local Governments

The State of California's 2014-15 budget and the Governor's proposed 2015-16 budget include a variety of new and existing grant programs using AB 32 cap-and-trade auction revenues to fund local government sustainability efforts. While these funding programs are administered throughout various state agencies, the goal of the cap and trade program is to advance both the State's AB 32 GHG reduction goals as well as the goals in local Climate Action Plans and other sustainability programs and projects in communities.

Summary of Funding Programs

The 2014-15 State Budget provides \$832 million in Cap and Trade proceeds to support existing and pilot programs that will reduce GHG emissions and meet SB 535 goals. This expenditure plan will reduce emissions by modernizing the state's rail system including high-speed rail and public transit, encouraging local communities to develop in a sustainable way with an emphasis on public transportation and affordable housing, increasing energy, water, and agricultural efficiency, restoring forests in both urban and rural settings and creating incentives for additional recycling. The budget permanently allocates 60 percent of future auction proceeds to public transit, affordable housing, sustainable communities and high-speed rail. The remaining proceeds will be annually allocated in future budgets. Funding for these programs is identified as either an "ongoing" or "one-time" appropriation in the description of each program. This brochure provides an overview of 13 funding streams – related to transportation, clean energy, and natural resources – that either directly or indirectly benefit cities and counties implementing local sustainability plans and goals, along with examples of the types of projects that could be funded in whole or part through the Greenhouse Gas Reduction Fund. Each program is administered by a different state agency. Please see the following page for a breakdown of the administering agencies.

More information can be found on ILG's Cap and Trade Resource Center at www.ca-ilg.org/cap-and-trade-resource-center.

TRANSPORTATION



[\\$125M Housing and Community Development – Affordable Housing & Sustainable Communities](#)



[\\$230M California Air Resources Board – Low Carbon Transportation](#)



[\\$25M California State Transportation Agency – Transit & Intercity Rail Capital](#)



[\\$25M Caltrans – Low Carbon Transit Operations](#)



[\\$250M High Speed Rail Authority – High Speed Rail](#)

ENERGY EFFICIENCY



[\\$20M California Energy Commission – Energy Efficiency in Public Buildings](#)



[\\$75M California Department of Community Services and Development – Low-Income Weatherization/Renewable Energy](#)



[\\$25M California Department of Food and Agriculture – Agricultural Energy and Operational Efficiency](#) (\$10M from 2013-2014, \$15M from 2014-2015)



[\\$30M Department of Water Resources – Water Energy Efficiency](#) (from 2013-2014)

NATURAL RESOURCES



[\\$5M Department of Conservation – Sustainable Agriculture Land Conservation](#)



[\\$42M CalFire – Urban Forestry & Forest Health](#)



[\\$25M Department of Fish and Wildlife – Wetlands & Watershed Restoration](#)



[\\$25M CalRecycle – Waste Diversion](#)

Affordable Housing and Sustainable Communities Program



PROGRAM AREA: TRANSPORTATION

FUNDING LEVEL: 20% ongoing allocation; \$125 million in 2014-15 budget;
50% of funds must benefit disadvantaged communities.

ADMINISTERING AGENCY: Housing and Community Development.

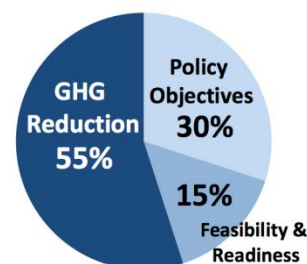
GHG methodology by CARB. Program guidelines by the Strategic Growth Council.

Program Description

This competitive program seeks to fund city and county projects that result in the reduction of greenhouse gas emissions (GHG) and vehicle miles travelled (VMT) and increase accessibility of housing, employment centers and key destinations through low-carbon transportation options such as walking, biking and transit. There are two eligible project types: 1) Transit-Oriented Developments combined with affordable housing units, and 2) Integrated Connectivity Projects that include active transportation/complete streets infrastructure combined with trip reduction programs or local planning/implementation. Program applications are due in April 2015 with funding awards in June 2015.

Successful Project Attributes

Based on the requirements and priority criteria of the program, the most successful city and county projects would be cost-effective transportation infrastructure/programs with multiple co-benefits that are already CEQA approved and “shovel-ready” to implement regional GHG reduction plans. Given the requirements for environmental clearances and emphasis on GHG reduction per dollar requested, most cities and counties would benefit from active transportation projects that combine infrastructure with trip reduction education due to minimal cost per ton for VMT and GHG reduction, minimal CEQA requirements, and maximum co-benefits such as improved health and air quality. Additionally, active transportation projects are an effective strategy to improve accessibility within and between communities of all kinds.



Example of Eligible Project: City of Davis Complete Streets Road Diet



The Davis City Council in 2009 endorsed a reconfiguration for Fifth Street, a major arterial that provides crosstown access to the downtown core and UC Davis. As part of the design phase, the city conducted a series of public workshops to gather community input. The redesign included changing the roadway from two vehicle lanes in each direction to one vehicle lane and a bike lane, plus turning lanes. The project also added marked crosswalks, more streetlights and Americans with Disabilities Act (ADA)-compliant ramps. In 2010 the city received a Sacramento Area Council of Governments (SACOG) Community Design Grant and in 2012, it received a Highway Safety Improvement Program Grant earmarked for pedestrian safety improvements. Construction began in fall

2013, and the final phase was completed in late 2014. It has become a widely used path of travel for cyclists and allows Fifth Street to tie in to the city's extensive bike path and lane network while providing a much safer cycling route for people to get to and from the UC Davis campus and the active downtown.

Low Carbon Transportation

PROGRAM AREA: TRANSPORTATION

FUNDING LEVEL: One-time allocation; \$230 million in 2014-15 budget;

At least 50% of funds must benefit disadvantaged communities

ADMINISTERING AGENCY: California Air Resources Board (CARB)



Program Description

This program seeks to accelerate the transition to low carbon freight and passenger transportation, with a priority for disadvantaged communities. This investment will also support the statewide goal to deploy 1.5 million zero-emission vehicles in California by 2025. CARB administers existing programs that provide rebates for zero-emission cars and vouchers for hybrid and zero-emission trucks and buses. These expenditures will respond to increasing demand for these incentives, as well as provide incentives for the pre-commercial demonstration of advanced freight technology to move cargo in California, which will benefit communities near freight hubs. Additionally, cities and counties are eligible to apply for competitive grants in the following program categories. Funding levels and proposal solicitations will be out in spring 2015 with funding awards in June 2015:

- Freight demonstration projects -- \$50M
- Light duty pilot projects in disadvantaged communities -- \$9M
 - Targeted Car Sharing in Disadvantaged Communities – Up to \$2.5M
 - Increased Incentives for Public Fleets in Disadvantaged Communities – Up to \$3M
- Zero-emission truck and bus pilot projects in disadvantaged communities -- \$25M
 - Zero-emission transit bus
 - Zero-emission school bus
 - Zero-emission freight/delivery truck

Successful Project Attributes

Cities and counties can take advantage of a few funding components within this program, including: rebates for public fleets located in or serving disadvantaged communities (up to \$5,250 for plug-in hybrid electric vehicles), up to \$10,000 for battery electric vehicles, and up to \$15,000 for fuel cell electric vehicles. Additionally, local governments can benefit from other program categories that transit agencies, air districts, or local businesses may apply for, such as advanced technology demonstration projects, hybrid and zero-emission trucks and buses, and pilot programs such as electric car-sharing in disadvantaged communities.

Example of Eligible Project: SunLine Transit Agency Fuel Cell Buses

Transit became one of two early adopters of hydrogen fuel cell transit fleets in California. In April 2010 SunLine introduced the first advanced technology bus, the “New Flyer Fuel Cell,” with a range of 250 to 300 miles. This bus has accumulated over 80,000 miles to date. In January 2012 SunLine introduced a second fuel cell bus, the “American Fuel Cell,” with a range of 300 to 350 miles. This bus has accumulated over 75,000 miles to date. In June 2014 SunLine introduced its third fuel cell bus with the latest 8th generation hydrogen fueled vehicle technology with a range of 300 to 350 miles.



Transit & Intercity Rail Capital

PROGRAM AREA: TRANSPORTATION

FUNDING LEVEL: 10% ongoing allocation; \$25 million in 2014-15 budget; 25% of funds must benefit disadvantaged communities.

ADMINISTERING AGENCY: California State Transportation Agency developed guidelines, scores applications, and makes recommendations. Funding allocated and program administered by California Transportation Commission.



Program Description

This competitive grant program for rail and bus transit operators funds capital improvements that integrate state and local rail and other transit systems, including those located in disadvantaged communities, and those that provide connectivity to the high-speed rail system. The State Transportation Agency will prepare a list of projects recommended for funding, to be submitted to the California Transportation Commission for programming and allocation. Eligible projects include connectivity improvements to existing/future rail and transit systems, increased service and reliability of intercity and commuter rail and transit, rail integration of ticketing/scheduling systems, and bus rapid transit or other GHG reducing transit investments. Policy objectives for the program include reduction of greenhouse gas emissions, expansion and improvement to rail service to increase ridership, rail service integration of the state's various rail operators (including integration with the high-speed rail system), and improvements to rail safety. In addition to reducing GHG emissions, projects will be evaluated based on the implementation of regional Sustainable Communities Strategies and co-benefits such as improving public health, promoting active transportation, or reducing vehicle miles travelled. Program applications are due in April 2015 with funding awards in August 2015.

Successful Project Attributes

Eligible applicants include public agencies (including Joint Power Authorities) that operate existing or planned regularly scheduled intercity or commuter passenger rail service or urban rail transit service. An eligible applicant may partner with transit operators that do not operate rail service on projects to integrate ticketing and scheduling with bus or ferry service. This program will be competitive among eligible applicants and based on GHG reduction and other policy objectives. Cities and counties are encouraged to coordinate with their local transit providers to enhance system wide sustainability goals and look for ways to leverage other funding sources.

Example of Eligible Project: LA “Metro Rapid” Demonstration Program

The Metro Rapid Demonstration Program was implemented in June 2000, and now operates within a network of nearly 400 miles of Metro Rapid service, while integrating light and heavy rail transit through Los Angeles County. Buses now arrive as often as every 3-10 minutes during peak commute times, and include a number of key attributes such as bus signal priority, low-floor buses, and fewer stops. Passenger travel times have been reduced by as much as 29 percent. As a result, initial ridership increased by up to 40 percent, with one third of that ridership increase from new riders who had never used public transit.



Low Carbon Transit Operations

PROGRAM AREA: TRANSPORTATION

FUNDING LEVEL: 5% ongoing allocation; \$25 million in 2014-15 budget;
50% of funds must benefit disadvantaged communities.

ADMINISTERING AGENCY: Caltrans. GHG methodology by CARB.



Program Description

This formula-based program was created to provide operating and capital assistance for transit operators or regional transportation planning agencies to reduce greenhouse gas emissions and increase transit ridership, with a priority on serving disadvantaged communities. Eligible projects include new or expanded bus and rail services, as well as service or facility improvements such as equipment, fueling and maintenance. Expenditures are required to result in an increase in transit ridership and a decrease in GHG emissions. Transit projects must achieve GHG reductions by reducing passenger vehicle miles travelled through incentives, infrastructure, or operational improvements (e.g., providing better bus connections to intercity rail, encouraging people to shift from cars to mass transit). For agencies whose service area includes disadvantaged communities, at least 50 percent of the total funds received must be expended on projects that will benefit disadvantaged communities. Program applications are due in April 2015 with funding awards in June 2015.

Successful Project Attributes

Funding amounts will be distributed by formula to local transit operators, transportation planning agencies, county transportation commissions, or any other agencies that are eligible for State Transit Assistance funds. This program is not competitive and cities and counties are not eligible to apply directly, however, cities and counties may coordinate with their local transit providers to enhance system wide sustainability goals.

Example of Eligible Project: Riverside Transit Agency Offers Free Bus Passes to Students

The Riverside Transit Agency (RTA) has been recognized for its hugely successful student ride programs and involvement in public promotion of the transit system. RTA's Go-Pass and U-Pass programs have provided Riverside County college students free transit access for nearly a decade, with thousands of students getting unlimited rides on RTA buses by simply swiping their campus IDs. The program encompasses five partner schools: Cal Baptist, La Sierra University, Mt. San Jacinto College, Riverside City College and UC Riverside. The program is responsible for more than 1.5 million student boardings each year and credited not only for saving students money, but also reducing campus traffic and air pollution.



High Speed Rail

PROGRAM AREA: TRANSPORTATION

FUNDING LEVEL: 25% ongoing allocation; \$250 million in 2014-15 budget

ADMINISTERING AGENCY: California High Speed Rail Authority



Program Description

The Greenhouse Gas Reduction Fund includes an investment of \$59M for further environmental planning, permitting, and design work for the first phase of the California High Speed Rail Project (which would extend from San Francisco to Anaheim) and \$191 for right-of-way acquisition and construction of the initial operation segment in the Central Valley, which would extend 130 miles from Madera to Bakersfield. The State Budget also provides an ongoing commitment that allows for the advancement of the project on multiple segments concurrently, which yields cost savings and creates an opportunity for earlier potential private sector investment. These investments in the high-speed rail system will alleviate pressure on California's current transportation network and will provide both environmental and economic benefits.

Successful Project Attributes

This funding is allocated directly to the High Speed Rail Authority to support the construction of the high-speed rail project. Local governments are not eligible for funding from this program, however, other cap and trade programs encourage or provide funding for connectivity and accessibility between local transportation systems and the statewide system (e.g. the Transit and Intercity Rail Capital Program includes funding for High Speed Rail connectivity).

Example of Related Project: Sacramento Intermodal Transportation Facility

The Sacramento Intermodal Transportation Facility (SITF) is a master-planned, multi-phased project, comprising separate but related facilities that, when complete, will enable state-of-the art operations for multiple modes of transportation at a unified site. It will provide user-friendly connections between all modes of transportation – train, light rail, bus, bicycle, pedestrian, taxi and automobile with future planning for California High Speed Rail into the site area. Phase 1 of the SITF was largely completed with the



realigning of rail track infrastructure, separating freight and passenger tracks through the new passenger platforms with a new passenger tunnel and canopies with state-of-the-art information systems and ticketing. Construction began May 2011, and was completed in late 2013. The City of Sacramento secured \$40 million in federal funds and \$31 million in local and state funds for the construction of Phase 1. Major components of Phase 2 are to include architectural restoration and rehabilitation of the grand historic Sacramento Valley Station, that will be executed in guidance with the Secretary of the Interiors' Standards for Historic Buildings. The City of Sacramento has been awarded a Federal Department of Transportation Investment Generating Economic Recovery (TIGER) IV grant for \$15 million of federal funding to be matched with \$15 million of local funding for the construction of Phase 2.

Energy Efficiency in Public Buildings

PROGRAM AREA: ENERGY EFFICIENCY

FUNDING LEVEL: One-time allocation; \$20 million in 2014-15 budget

ADMINISTERING AGENCY: California Energy Commission (CEC)



Program Description

This first-come, first served program is for energy efficiency and energy generation projects in public buildings, including the University of California, the California State University, and courts. Energy savings projects will include lighting systems, energy management systems and equipment controls, building insulation and heating, ventilation, and air conditioning equipment. Eligible projects include building retrofits for energy efficiency and energy generation. Program funding awards will be made in July 2015.

Successful Project Attributes

Local governments are not eligible to apply directly for the portion of this program that is funded through cap and trade, however, CEC administers a similar program under the “Energy Conservation Assistance Act” (ECAA). Under the ECAA cities and counties may apply directly for financing energy efficiency improvements on public structures such as city halls or parking lots, as well as street lighting or solar panels. Historically, local jurisdictions have received 59% of ECAA funds and have had successful project outcomes.

Example of Eligible Project: City of Arcata Solar Energy Program

In an effort to lead by example, the City of Arcata has installed two solar electric systems on city facilities. These include a 12.1 kilowatt (kW) grid-tied, rooftop solar photovoltaic (PV) system installed at city hall and a 2.3 kW grid-tied, rooftop solar PV system at the Arcata Marsh Interpretive Center. The Energy Program has been active in energy- and climate change-related activities since 2000. One of the main tasks of the Energy Program is to assist with the implementation of the goals and strategies outlined in the Community Greenhouse Gas Reduction Plan. The Energy Program promotes energy efficiency and conservation, renewable energy, water-use efficiency, and sustainability through outreach and education and through the implementation of energy efficiency and renewable energy projects around the community. The Energy Program also serves as an information resource for residents and business owners interested in seeking ways to include energy efficient practices in their daily lives.

Example of Eligible Project: City of Chula Vista Energy Efficiency Measures

Chula Vista continues to invest in its future through comprehensive staff trainings and energy benchmarking of all its major buildings. Over 54 municipal facilities have had energy upgrade improvements in the last five years that reduce utility costs and improve operations. Around town, over 7,000 streetlights were converted to energy-saving LED technology. Through its partnership with SDG&E®, the City of Chula Vista created innovative approaches to advance municipal and community energy efficiency. Underserved audiences like small businesses, elderly, youth and low-income residents are reached through a comprehensive outreach network that leverages libraries, recreation centers, affordable housing services, business licenses and permit application processes. Grassroots energy conservation education combined with facility improvements, energy codes and inspections, and energy-saving development has distinguished Chula Vista as a model municipal environmental champion.

Low-Income Weatherization Program

PROGRAM AREA: ENERGY EFFICIENCY

FUNDING LEVEL: *One-time allocation; \$75 million in 2014-15 budget; 100% of funds must benefit disadvantaged communities.*

ADMINISTERING AGENCY: California Department of Community Services & Development. GHG methodology by CARB.



Program Description

The Low-Income Weatherization Program (LIWP) will assist in the installation of energy efficiency and renewable energy projects in single and multifamily low-income housing units within disadvantaged communities to help reduce GHG emissions. By design, this program will also leverage existing Low-Income Home Energy Assistance Program funds, Weatherization Assistance Program funds, workforce development agency funding, utility-funded incentives, and other similar resources to increase the health and safety benefits of weatherization services to low-income families. Weatherization measures typically include weather-stripping, insulation, caulking, water heater blankets, fixing or replacing windows, refrigerator replacement, electric water heater repair and replacement and heating and cooling system repair and replacement. Renewable energy measures include installation of solar water heater systems and photovoltaic systems. Eligible projects include single-family weatherization and solar hot water heating from existing service providers. Additionally, multi-family weatherization and solar photovoltaics are eligible projects on a competitive basis. The program goals are to reduce GHG emissions, create jobs, stimulate the local economy and maximize energy savings to low-income households within disadvantaged communities.

Successful Project Attributes

The California Department of Community Services & Development (CSD) contracts with an existing network of local private nonprofit and public agencies in all 58 counties. The LIWP will be integrated into agencies' existing weatherization programs. Cities and counties can work with CSD and private nonprofits who administer the program to partner on improving low income home energy efficiency in their communities to help support local climate action plans and sustainability goals.

Example of Eligible Project: Tulare County Weatherization Program

As the Community Action Agency for Tulare County, Community Services Employment Training (CSET) works with CSD to implement a weatherization program provided at no cost to low-income families who own or rent an apartment, home or mobile home in Tulare County. The goal of the program is to help low-income households reduce heating and energy costs by improving the energy efficiency of their homes. Residents gain valuable information on how to conserve energy and improve energy related health and safety conditions. Eligible residents receive cost effective measures such as: weather stripping of exterior doors, water restrictors and low-flow shower heads, water heater blankets, switch and outlet gaskets, lighting retrofits, carbon monoxide detectors, glass window repair or replacement, gas appliance repair or replacement and other minor home repairs.

Agricultural Energy and Operational Efficiency

PROGRAM AREA: ENERGY EFFICIENCY

FUNDING LEVEL: *One-time allocation; \$10 million in 2013-14 budget and \$15 million in 2014-15 budget*

ADMINISTERING AGENCY: California Department of Food and Agriculture



Program Description

This program funds projects that reduce GHG emissions from the agriculture sector by capturing greenhouse gases, harnessing greenhouse gases as a renewable bioenergy source, improving agricultural practices and promoting low carbon fuels, agricultural energy and operational efficiency. There are three funding categories within this program:

- *Water Use Efficiency* - \$10M is dedicated to the state water efficiency and enhancement program. The program awards competitive grants to agricultural operations to implement water conservation measures that result in increased water efficiency and reduced greenhouse gas emissions. Requirements include mandatory water savings and mandatory GHG reductions. The purpose of this program is to increase water conservation by improving water management and creating efficiencies on farms while at the same time reducing emissions of greenhouse gases through energy efficiency. Water conservation will play an important role in helping the agricultural sector address current drought conditions and impact on our food supply. Projects were awarded funding in January 2015.
- *Dairy Digesters* - \$12M in competitive grant funding is available for the implementation of dairy digesters, a renewable technology that uses livestock manure to produce methane, which is a renewable source of electrical energy generation and transportation fuel. \$500,000 of this is dedicated for research projects that support the development and demonstration of technologies and approaches that can increase the widespread implementation of dairy digesters and improve their environmental and economic benefits. Project funding proposals will be awarded funding in June 2015.
- *Alternative and Renewable Fuels* - \$3M is dedicated to state implemented programs.

Successful Project Attributes

The funding for this program is intended to provide financial assistance to farmers on single sites to implement conservation and energy saving measures that reduce GHG emissions. For cities and counties in rural locations, particularly in the San Joaquin Valley, these projects could support overall efforts to improve air quality, conserve water and reduce GHG emissions. While agricultural operators are the only eligible applicants, cities and counties are encouraged to identify, reach out, and coordinate with local land owners to help meet sustainability goals for the region.

Water-Energy Efficiency

PROGRAM AREA: ENERGY EFFICIENCY

FUNDING LEVEL: One-time allocation; \$30 million in 2013-14 budget

ADMINISTERING AGENCY: Department of Water Resources



Program Description

This program provides funds to implement water efficiency programs or projects that reduce greenhouse gas emissions, and reduce water and energy use. Eligible proposals include residential water efficiency, commercial water efficiency, institutional water efficiency programs, or projects that reduce greenhouse gas, reduce water and reduce energy use. Eligible applicants include local agencies, joint powers authorities and nonprofit organizations. This program provides \$20M in funding for competitive grants that support water use efficiency and conservation projects, leak detection and repair projects that reduce GHG emissions, with additional consideration given to disadvantaged communities. Funding awards will be made in May 2015. \$10M of this program funding will go to efficient hydro energy turbines that are state implemented and not part of the competitive grant process.

Successful Project Attributes

Project proposals for the water conservation and efficiency grants will be ranked based upon the estimated water savings (million gallons/total project cost) and energy savings (kWh/total project cost), adjusted as necessary. Projects that include water and energy savings within the system will be considered for funding priority. Preference will be given to proposals that include regional projects, or projects that are consistent with an Integrated Regional Water Management Plan. Additional consideration will also be given to projects that provide system specific energy intensity and emission factors.

Example of Eligible Project: Windsor Efficiency PAYS Program

The Town of Windsor, in partnership with Sonoma County Energy Independence Program, Sonoma County Regional Climate Protection Authority, Sonoma County Water Agency and Climate Protection Campaign, has launched an innovative water conservation program that provides utility bill savings, new water saving fixtures and appliances and drought resistant landscaping to consumers. The program is a “pay as you save,” with no loan and no debt associated with repayment. After installation of eligible upgrade measures, participants pay a surcharge on their water bill with the assurance that their estimated savings on combined utility bills (energy and water) will exceed the bi-monthly water surcharge. If residents move or relocate at any time, the payment obligation ends; the next bill payer at your location gets the remaining savings and makes the remaining payments. If an installed measure fails at any time during the payment period and is not repaired, the payment obligation ends. Once the repayment term is complete residents will benefit from 100% of the utility bill savings.



Sustainable Agriculture and Land Conservation

(under the Affordable Housing and Sustainable Communities Program)

PROGRAM AREA: NATURAL RESOURCES

FUNDING LEVEL: One-time allocation; \$5 million in 2014-15 budget

ADMINISTERING AGENCY: Natural Resources Agency and Department of Conservation. Program guidelines by the Strategic Growth Council.



Program Description

The Sustainable Agricultural Lands Conservation (SALC) program is a component of the AHSC program and supports the protection and management of California's agricultural lands. This program will provide \$5M in grants and/or loans to projects that will achieve GHG reductions by protecting agricultural lands through investments in strategic planning and agricultural easements, with the goals of avoiding greater GHG emissions from non-agricultural development and sequestering carbon. Other benefits also include ensuring food security, energy conservation, protecting wildlife habitat, and supporting both flood mitigation and groundwater recharge. Additionally, the SALC program will support in future years, farm-scale conservation and land management practices through incentives that further promote reductions in GHG emissions and increases in soil carbon sequestration.

Successful Project Attributes

Cities and counties are eligible to apply directly to the SALC program through two funding categories that intend to integrate and leverage existing agricultural land protection programs. Up to \$4 million is available for *Agricultural Conservation Easements* in order to avoid increases in greenhouse gas emissions associated with agricultural lands, including both cultivated and non-cultivated (e.g. rangeland and pasture). Competitive projects will leverage protection of strategically located, highly productive, and critically threatened agricultural land. Up to \$1M is available for *Sustainable Agricultural Land Strategy Plans* to inventory and evaluate which lands are most productive and critically threatened and to develop local plans to protect them. Project examples include the development of community consensus-building for an agricultural land strategy, identification of potential agricultural easement projects, innovation incentives for GHG reduction through financial or technical tools.

Example of Eligible Project: Sonoma County Climate Strategy for Land Conservation

The Sonoma County Agricultural Preservation and Open Space District has launched an effort to quantify landscape-scale greenhouse gas benefits associated with avoiding the conversion of rangelands, forests, and urban forests to other uses. The project is piloting approaches will be used to develop tools and incentives to help counties throughout California to address climate change through land conservation and changes in management. A number of data sources are being used to characterize the natural, agricultural, and recreational values of rangelands in Sonoma County. The results of these analyses will be combined with data on land-based carbon storage and estimates of existing and potential greenhouse gas reductions in rangelands. These conservation values and potential climate benefits will be integrated in a series of scenarios that will inform land-use planning, complementing the county's existing Climate Action Plan. The project will also develop a county-scale greenhouse gas accounting and monitoring tool to track emissions and carbon sequestration associated with the management and conservation of rangelands, forests, and urban forests. Preliminary estimates suggest potential emissions reductions from avoided rangeland conversion in Sonoma in the range of 35 to 40 tCO₂e per acre. Costs for recent conservation easements in Sonoma County have averaged roughly \$1,000/acre.

Urban and Community Forestry Program

PROGRAM AREA: NATURAL RESOURCES

FUNDING LEVEL: One-time allocation; \$18 million in 2014-15 budget;
100% of funds must benefit disadvantaged communities.

ADMINISTERING AGENCY: CalFire



Program Description

The urban forestry grants are designed to help communities create or implement multi-benefit projects with a focus on reducing greenhouse gas emissions. This competitive program focuses on urban forests in disadvantaged communities. The Urban Forestry program provides five distinct grant programs all related to urban forestry:

- *Green Trees:* Urban tree planting and tree care. Preference for projects in environmental justice communities as defined by [CalEnviroScreen 2.0](#).
- *Urban Forest Management:* Urban forest inventories, mapping and management plans.
- *Biomass Utilization:* Diversion of woody biomass from the waste stream.
- *Woods in the Neighborhood:* Purchase and improvement of vacant lots in environmental justice communities (as defined by [CalEnviroScreen 2.0](#)) for urban forestry.
- *Green Innovations:* Unique, forward-thinking urban forestry projects.

Successful Project Attributes

Cities and counties are eligible applicants for each grant program. The project area must be located in an urban area or immediately adjacent to an urban area. Maximum and minimum grant amounts vary for each program. Projects must demonstrate GHG benefits and most programs require or give priority to projects that benefit disadvantaged communities based on the CalEnviroScreen 2.0. A common grant for Urban Forestry dollars includes the planting of trees that will be cultured and maintained for at least 40 or more years, and provide aesthetics, carbon sequestration and reduction in local energy needs.

Example of Eligible Project: City of Santa Monica Urban Forest Monitoring Program



Santa Monica is piloting the most sophisticated Urban Forest monitoring program in the state. In conjunction with the U.S. Forest Service, the City of Santa Monica has lists of pre-identified native and non-native trees that grow best in the Santa Monica area. Additionally, Santa Monica is in the process of piloting a state-of-the-art tree inventory and maintenance work order enterprise system to know where all public trees are located. The enterprise system will allow the city to track work orders for tree planting, tree removal, watering, and pruning, and to develop reports that investigate the health, age, and environmental benefits, helping to maximize urban

forest planning. Guided by a grant the city was awarded by the Air Quality Management District and the provisions in the California Air Resources Board (CARB) Urban Forest Project Protocol, Santa Monica planted over 1,000 trees across the city in 2011 and 2012 – looking to get carbon credits. To meet the state's high standards, the city had to develop a way to account for the carbon stored in its urban forest, and prove overall urban forest funds to maintain a baseline number of healthy trees, on top of tracking net tree gain. With their pilot program, Santa Monica could make urban forest history.

Wetlands Restoration for Greenhouse Gas Reduction Program

PROGRAM AREA: NATURAL RESOURCES

FUNDING LEVEL: One-time allocation; \$25 million in 2014-15 budget

ADMINISTERING AGENCY: Department of Fish and Wildlife



Program Description

The Wetlands Restoration for Greenhouse Gas Reduction Program will support projects that reduce GHGs and provide co-benefits such as enhancing fish and wildlife habitat, protecting and improving water quality and quantity and helping California adapt to climate change. This program is focused on GHG emission reduction through restoration or enhancement of Delta and coastal wetlands and mountain meadow habitat and seeks to implement projects that provide carbon sequestration benefits. In addition to furthering the goals of AB 32, these types of projects are integral to developing a more sustainable water management system statewide.

Successful Project Attributes

Public agencies, recognized tribes, and qualified nonprofit organizations are eligible to submit restoration or enhancement proposals. While cities and counties are eligible to apply, this program is limited to the following areas:

- **Sacramento-San Joaquin Delta and Coastal Wetlands**, to develop and implement projects in the Delta and coastal areas with measurable objectives that will lead to reductions in GHGs.
- **Mountain Meadow Ecosystems**, to develop and implement mountain meadow projects throughout the state with measurable objectives that will lead to reductions in GHGs.

Example of Eligible Project: Delta Wetland Restoration and Management

Growing wetland vegetation on subsided Delta lands promises to deliver a variety of benefits, including reducing greenhouse gas emissions, sequestering carbon, rebuilding subsided land and providing habitat. Since 1997, researchers from the California Department of Water Resources, the U.S. Geological Survey, and the University of California have been researching the carbon sequestration and subsidence reversal effects of re-establishing native tules and cattails in standing water on a 15-acre plot on Twitchell Island in Sacramento County. Plans call for the project to be expanded to a total of 2,500 acres on two Delta islands by 2017, providing a full-scale test of this type of "carbon farming." Results from the Twitchell Island project indicate that managing subsided lands for wetland vegetation deliver a net climate benefit of 7 to 14 tCO₂e per acre each year. This figure accounts for the sequestration of carbon in vegetation and peat soils, the release of methane from flooded lands (which offsets some of the sequestration benefit), and the avoidance of the soil decomposition that would occur under the default land management practice, growing corn. The Department of Water Resources estimates the construction and ecological restoration costs associated with the large-scale development of wetland systems on subsided Delta lands at \$3,000 to \$5,000 per acre.



Waste Diversion

PROGRAM AREA: NATURAL RESOURCES

FUNDING LEVEL: One-time allocation; \$25 million in 2014-15 budget

ADMINISTERING AGENCY: CalRecycle



Program Description

This program provides financial incentives for capital investments that expand waste management infrastructure, with a priority in disadvantaged communities. Investment in new or expanded clean composting and anaerobic digestion facilities is necessary to divert more materials from landfills. These programs reduce GHGs and support the 75% solid waste recycling goal.



Successful Project Attributes

Cities and counties are eligible to apply directly for this program. In addition to demonstrating GHG reduction potential, applicants will be judged on their experience and capacity to implement the project including the financial ability to pay off loans, including adequacy of collateral. There are three programs in this area:

- **Organic Materials:** Projects must divert or change the handling of organic materials such as food wastes to reduce GHGs. Includes composting and digesters.
- **Recycled Fiber, Plastic and Glass Products:** Grants to support manufacturing of products with increased recycled content.
- **Greenhouse Gas Reduction Revolving Loan Program:** Loans up to \$5 million (can cover 75% of the cost of a project) to create or expand facilities to process organic or recycled materials into new products.

Example of Eligible Project: Anaerobic Digestion Project in San Rafael – Central Marin Commercial Food to Energy Program

Food is the largest single source of waste in California. It is ~16% percent of the Commercial waste stream and ~25% of the Residential waste stream. A 2008 Marin Sanitary Service (MSS) Waste Characterization study performed by Cal Recovery found that 27.1 % or 4,700 tons of solid waste sent to Redwood Landfill by MSS, is food waste. There are over 500 food waste generators (restaurants, delis, grocery stores) in the MSS service area. The estimated amount of food waste that could be collected if all generators participate in the program is up to 20 tons per day. As a result, the City of San Rafael approved the MSS transfer station to receive and store food waste with over 125 food generators participating in the Program's roll out phase. The program also includes a restaurant staff training program with materials in downtown San Rafael. The program is helping to achieve the County of Marin's zero-waste goals by reducing landfilling of food waste with an estimated GHG reduction of 2,000 metric tons per year.



Resources to Learn more

- ILG's Cap and Trade Resource Center: www.ca-ilg.org/cap-and-trade-resource-center
- League of California Cities Cap and Trade Website: www.cacities.org/capandtrade
- LGC's Infographic: www.lgc.org/resources/carbon-neutral-infographic
- Cap and Trade Expenditure Plan: www.ebudget.ca.gov/2014-15/pdf/Enacted/BudgetSummary/CapandTradeExpenditurePlan.pdf
- CARB's "Local Government Actions for Climate Change: www.arb.ca.gov/cc/localgovernment/localgovernment.htm
- ILG's Recycling Resource Center: www.ca-ilg.org/recycling-resource-center
- CARB's Updated Summary Table of GHG Reduction Fund Programs: www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrf-program-status-1-31-15.pdf
- CARB's Auction Proceeds Funded Programs and Events: www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm
- Disadvantaged Communities Interactive Map: <http://oehha.maps.arcgis.com/apps/Viewer/index.html?appid=dae2fb1e42674c12a04a2b302a080598>
- Other Information on Disadvantaged Communities: www.calepa.ca.gov/EnvJustice/GHGInvest/



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