



BEACON
 SPOTLIGHT
 AWARD
 WINNER
 BEST PRACTICE
 ACTIVITIES



City of Benicia

Sustainability Best Practice Activities









ILG INSTITUTE FOR
 LOCAL GOVERNMENTSM
Promoting Good Government at the Local Level

City of Benicia

California communities are leading the fight against climate change. From small projects to large-scale programs, cities and counties are making great strides to create healthy, sustainable and economically prosperous communities. Participants in ILG's Beacon Program serve as leaders in this effort, making measureable contributions to reducing energy and greenhouse gas emissions, and sharing their sustainability best practices.

This document represents a collection of activities your agency has completed in 10 areas of sustainability. While local governments have a wide range of choices available to address climate change, these activities represent the unique opportunities and values in your community. These voluntary actions are essential to achieving California's goals to save energy, reduce greenhouse gas (GHG) emissions and create more sustainable communities.

SPOTLIGHT AWARD

Areas of Accomplishment		SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
	Agency GHG Reductions			2013 (21%)
	Community GHG Reductions	2016 (6%)		
	Agency Energy Savings	2013 (8%)	2014 (11%)	
	Natural Gas Savings	2013 (8%)	2015 (10%)	
	Sustainability Best Practice Activities	2013		2014
	Beacon Award	2016		

Cities and counties throughout the Golden State should be proud of the accomplishments made through the hard work, innovation and collective community action. The Institute for Local Government applauds your achievements and thanks you for your continued participation in the Beacon Program.

The Beacon Program is sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative (SEEC). SEEC is an alliance between three statewide non-profit organizations and California's four Investor-Owned Utilities. The Beacon Program is funded by California utility ratepayers and administered by Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison and Southern California Gas Company under the auspices of the California Public Utilities Commission.



Energy Efficiency and Conservation Activities

Silver

1. The city partnered with WattzOn to conduct residential energy and water assessments and distribute compact fluorescent light bulbs (CFLs). Over 200 homes participated in the program. WattzOn conducted assessments with the assistance of high school students participating in the Students for the Advancement of Global Entrepreneurship (SAGE) Program.

Gold

2. The city partnered with Strategic Energy Innovations and six other small cities to implement the Small Communities Climate Action Plan, a PG&E Innovator pilot program. The city audited major agency buildings and facilities to work toward quantifying energy use and identifying opportunities for energy savings.
3. The city has retrofitted approximately 2,200 high-pressure sodium streetlights to LED and induction fixtures. A portion of these retrofits use Energy Efficiency Conservation Development Block Grant (EECBG) funding.

Platinum

4. The City of Benicia made use of PortfolioManager and UtilityTrac energy management software to monitor real-time energy use in agency buildings and to identify energy usage patterns and abnormalities. Reports on the evaluation of energy conservation measures in city facilities are available as supporting materials.
5. The city contracted with an energy services company that installed interior and exterior energy efficiency upgrades at eight city facilities.
6. The city participated in the AirCare Plus Program and an audit of agency building HVAC equipment to ensure they are operating as efficiently as possible. Implemented retrofits where feasible.
7. The city adopted a Property Assessed Clean Energy (PACE) Resolution 09-126 and is currently assessing the potential for the creation of a financing district and implementation of a program.
8. The city posted "Turn Off When Not in Use" stickers at three city facilities (100 stickers); stickers were provided by PG&E.





Water & Wastewater Systems Activities

Silver

1. The city distributed low-flow showerheads and low-flow hose nozzles at various community events, including Earth Day celebrations in 2009-2011.

Gold

2. The City of Benicia implemented methane capture for energy production at the wastewater treatment plant. The energy produced powers the odor scrubber at the facility.
3. The city installed an evapotranspiration system at eight city locations, five of which are online and functioning. As of 2015, the system measures wind, ground moisture and air temperature and then determines if irrigation water should be dispersed.

Platinum

4. The City of Benicia updated the Emergency Water Conservation Plan to manage water use during times of shortage.
5. The city installed solar systems at three pump stations and at the water treatment plant to offset energy use.
6. The city began implementing the Benicia Residential Plumbing Fixture Upgrade program to encourage installation of water conservation measures in homes including: toilets, clothes washers, laundry to landscape graywater systems, and thermostatic shut off, low-flow shower heads. The climate action plan coordinator is working with the city's Public Works to ensure that all messaging and branding is consistent and that residents understand all available resources to help them conserve water.
7. The city provides on-going funding for a portion of the county administered water rebate and lawn buy-back program, the city covers 25% of all rebates and marketing costs. City staff is currently seeking to increase funding for the county administered lawn buy-back program for residents who convert sod or grass to drought-tolerant landscaping.





Green Building Activities

Silver

1. The City of Benicia renovated the community center and achieved LEED Gold certification.

Gold

2. The city granted \$30,000 to a non-profit organization, GRID Alternatives, to complete five solar installations on low-income qualifying homes.
3. The city worked with a student intern to create the Benicia chapter of the Bay Area Green Business program. All sector checklists have been created and auditors (PG&E, city, waste company and the county) have been identified. The student intern was recently hired to complete a pilot phase of the program at three businesses in the city.

Platinum

4. As part of the city's Residential Solar Incentive program, participants were required to complete a home energy and water assessment provided by a third party company at no cost to the resident. The city is also offering no cost laundry to landscape gray water kits and requires that participants complete an energy and water assessment provided in partnership with Rising Sun Energy and funded by PG&E.
5. The city's Business Resource Incentive program (BRIP) provides \$10,000 grants and no and low interest loans to business owners in the industrial park to make efficiency upgrades, install renewable energy technologies, conserve water, reduce waste and transition to alternative fuel vehicles. This program also offers technical assistance to business owners in the form of no cost sustainability assessments.
6. The city opted in to two Property Assessed Clean Energy (PACE) financing districts: CaliforniaFIRST and Home Energy Resolution Opportunity (HERO). CaliforniaFIRST is currently available and HERO launched in November 2014.
7. The city has partnered with Arts Benicia, Republic Services, WattzOn, and Marin Clean Energy to implement the first Eco Awards identifying residents, businesses, and community-based organizations for water, waste and energy reduction activities.





Waste Reduction and Recycling Activities

Silver

1. The city renegotiated its waste contract to include additional recycling pick-up days for residential and commercial customers.

Gold

2. The city partners with the waste hauler to promote free home compost workshops four times per year to educate customers about how to compost, benefits of composting and uses of compost.
3. The City of Benicia promotes the waste hauler's free compost give-away for residents two times a year to collect three cubic feet of material that can be used in their gardens. The waste hauler also provides participants with a 50% discount for one home compost bin.

Platinum

4. Promotes waste haulers two Reuse Days when material is collected and recycled in accordance with the following hierarchy: reuse as is (where energy efficiency is not compromised); disassembly for reuse or recycling; recycle; disposal.
5. The city recycles old pavement when completing street resurfacing projects.
6. Benicia city hall employees currently compost all food scraps and soiled paper goods in the employee kitchen/ break room.





Climate-friendly Purchasing Activities

Silver

1. The city adopted an Environmentally Preferable Purchasing (EPP) Policy specific to source reduction, recycled content products, energy and water savings, green building, landscaping, toxics and pollution, forest conservation and agricultural bio-based products.

Gold

2. The EPP agency policy requires the purchase of remanufactured products such as laser toner cartridges, tires, furniture, equipment and automotive parts whenever practicable, but without reducing safety, quality or effectiveness.
3. The city requires all products purchased by the city and for which the U.S. EPA Energy Star certification is available meets Energy Star certification when practicable.

Platinum

4. The EPP requires the city to request that vendors eliminate packaging or use the minimum amount necessary for product protection, to the greatest extent practicable.
5. The EPP requires that paper products purchased contain the highest postconsumer content practicable, but no less than the minimum content standards established by the U.S. EPA guidelines.
6. The city and its Community Sustainability Commission created a five part educational workshop series that educate the public about climate-friendly procurement opportunities. As of May 2012, thee series have been completed.
7. Benicia has an existing fleet vehicle procurement policy that establishes standards for purchasing low-emission vehicles whenever possible.
8. Benicia Parks and Recreation Department plants only low-water species at city parks in accordance with the city's EPP.
9. The climate action coordinator and a CivicSpark member are currently working with the city's internal 'green team' to create an EPP tracking tool that would require purchasing agents to track consistency with the adopted policy.





Renewable Energy and Low-Carbon Fuels Activities

Silver

1. The City of Benicia hired a renewable energy project manager.

Gold

2. The city replaced walking signals with solar power signals.
3. The city converted six gasoline-powered vehicles in its fleet to hybrid vehicles. Two additional plug-in hybrid vehicles were donated to the city.

Platinum

4. The City of Benicia currently participates in the Solano Transportation Authority (STA) Alternative Fuel Vehicle Technical Working Group, with the mission to assist STA in developing a comprehensive alternative vehicles plan for the county.
5. The city purchased a compressed natural gas (CNG) bus to be used for the city public transit system. The city recently joined with SolTrans and no longer implements its own transit system. Therefore, the bus was given to SolTrans for future use.
6. The city developed and successfully implemented a residential solar incentive program. It partnered with five local solar companies to provide matching per watt rebates. The issued flat incentives so long as systems were 1.5kw or greater. Thirty-four systems were installed as a result of the program.
7. The city installed 1.67MW solar project covering ten sites. All installations were complete as of October 2012.
8. The city installed a dual-connector compatible electric vehicle fast charger powered by a 76KW solar system (one of the ten sites described above) that is also connected to a 40kWh battery tower. An innovative software platform analyzes energy use, time of day and energy rates and sends a signal to the charger indicating whether it should charge from solar, grid or the battery tower. Eventually, the city hopes to integrate the battery storage on the building side and use it to power essential building functions during emergencies. A ribbon cutting event happened on June 18, 2014 and the station is open to the public.





Renewable Energy and Low-Carbon Fuels Activities

Platinum

9. The city council voted to join Marin Clean Energy (MCE), a local community choice aggregation (CCA) program.
10. The city council authorized the climate action plan coordinator to develop a Wind Energy Request for Proposals to solicit developer bids for a 3 Megawatt wind project at the city's water treatment plant. The RFP also requests a city-wide assessment of parcels that are ideal for future feed-in tariff projects and a comprehensive community outreach plan.
11. The city is currently working with a third party to assess a site for a feed-in tariff (FIT) solar project on land owned by Amports (private owner and operator of the Benicia Port).





Efficient Transportation Activities

Silver

1. The City of Benicia completed a number of bike and pedestrian improvement projects that include: bulb-outs, high visibility cross walks and bike lanes. Most notably, the city completed a Class I bike over-crossing that transverses I-780 and connects bicyclists to the state recreation area and nearby Vallejo.

Gold

2. The city designed express bus route support projects that included: high visibility crosswalks; tree-lined median; new trees and landscaping; improved bus stop environment; new pavement overlay; bicycle lockers; new bicycle lane; and curb extensions.
3. The city purchased 12 bike racks to were installed at six locations in the city including city hall.

Platinum

4. The city collaborates with other local agencies to coordinate planning goals and take advantage of opportunities to fund projects that help the city implement Climate Action Plan strategies. For example, the city collaborated with Solano Transportation Authority to identify funding for a Smart Growth, intersection improvement project that included the addition of Class II bike lanes near an elementary school. The project was also nominated as an approved project in the 2012 Safe Routes to School Plan update.
5. The Community Sustainability Commission helped create online resource for bike and safe routes to school maps for community members.
6. The city participated in the Solano/Napa Commuter Challenge, which challenged city employees to use a commute alternative (carpool, vanpool, bus, train, ferry, bicycle, walk) at least 30 times from April 1 through June 30, 2015.
7. The city promoted Bike to Work Day by hanging posters and distributing brochures and posters to local businesses and schools. The city offered financial incentives to the employee who biked the farthest distance and biked the most days to work in May. Other participants were also recognized.





Land Use and Community Design Activities

Silver

1. The City of Benicia adopted a resolution approving a grant agreement between the city and the Coastal Conservancy for the development of the Benicia Urban Waterfront Restoration Plan. This plan will address many issues including potential effects of sea level rise on the parkland.

Gold

2. The consulting climate action plan coordinator is currently developing a project tracker that will measure reductions of greenhouse gas emissions, energy savings, and cost savings associated with completed, pending, and future city and community projects.
3. The city council approved a mitigated negative declaration for the new Benicia Industrial Park Bus Hub. The project concept/design has undergone CEQA review. This Hub will provide a much needed regional transit hub that will better serve the Benicia Industrial Park and provide enhanced park and ride, public transportation and electric vehicle charging opportunities (two stations, funded by a California Energy Commission grant) for the greater Solano County region. Specifically, the bus hub will accommodate more ridership of a bus route that travels along Interstate 680 from Fairfield to the Pleasant Hill Bay Area Rapid Transit station. This project is expected to break ground in Summer 2015. The city is currently in the planning phase for a new bus hub in its Industrial Park. The bus hub will have park and ride spots, at least two electric vehicle charging stations, drought tolerant landscaping and innovative storm water design measures.

Platinum

4. The city received a \$150,000 Coastal Conservancy Climate Ready grant to conduct a vulnerability assessment and develop an adaption plan. The final plan will include a comprehensive list of resilience strategies that protect existing infrastructure from flooding and sea level rise and recommend updates to the city's code to limit development in areas that are susceptible to flooding and future sea level rise.





Land Use and Community Design Activities

Platinum

5. The recently created Benicia Bicycle Club received a \$20,000 grant to increase ridership and bicycle safety in the city. This group will identify safe routes, post additional route signs, host bicycle repair clinics and conduct various educational events. The Club also conducted a “How Bikeable is Benicia” survey to assess the needs of the community. Finally, the group will create a marked route where bikers can view various sustainability projects in the city, i.e. the city’s solar sites.
6. The city is currently implementing two Property Assessed Clean Energy Programs (PACE) (HERO and California FIRST) that offer financing for installation of photovoltaic and/or solar hot water systems on new or existing residential and commercial buildings and energy efficiency retrofits on existing buildings. Staff memo/ recommendation and resolutions relating to PACE programs is available as supporting documentation.
7. The city received a \$25,000 Transportation for Clean Air Grant allowing it to stripe two additional miles of Class II and Class III bike lanes connecting existing bike lanes on Rose Drive, a busy street that connects the east and west side of the city and runs directly in front of Matthew Turner Elementary School. This project was completed in 2013.





Open Space and Offsetting Carbon Emission Activities

Silver

1. The Benicia Tree Foundation formed a partnership with Benicia Unified School District and worked to identify best practices for planting and maintaining urban trees. The foundation also created a special program to support tree planting and community building efforts.

Gold

2. The City of Benicia was designated as a Tree City USA in 2009—facilitated by a partnership between the city and the Rotary Club of Benicia.
3. The city supports the Benicia farmer's market and the purchase of local and organic produce. The Community Sustainability Commission Education + Outreach workgroup also promotes the farmer's market.

Platinum

4. The city received grant funding to create the Urban Waterfront Enhancement Master Plan which, if implemented, would create a more sustainable park and waterfront by water-efficient landscaping and water efficient technology.
5. Assisted efforts by community groups and non-profit organizations, including Benicia Community Gardens, a local non-profit, to create community gardens. Staff time is spent in a supportive role of the gardens.
6. The city participates in and funds regional tree planting efforts and outreach campaigns to mobilize and encourage the community to plant trees. In 2013, the Community Sustainability Commission (city council appointed commission) funded the Benicia Tree Foundation.
7. The city was recently awarded a California Coastal Conservancy Climate Ready grant (\$150,000) to conduct a vulnerability assessment and develop an adaptation plan. This project will assess climate change related risks to community assets including open space, state recreation areas and habitat. The plan will include strategies to mitigate risks to those areas and preserve public assets.





Promoting Community and Individual Action Activities

Silver

1. The city surveyed businesses to understand attitudes related to climate change when developing the Sustainable Business Management program.

Gold

2. The city working with WattzOn and Carbon Lighthouse to develop and implement the Benicia Commercial Building pilot program. This program will educate business owners about the benefits of energy efficiencies and retrofits and on-site energy production. Forty businesses will receive no-cost energy assessments and recommendations for retrofits along with financing mechanism assistance. Two businesses will receive assistance to complete the recommended retrofits.
3. The city and the consulting climate action plan coordinator are currently developing a list of Climate Action Plan strategy priorities that are ranked based on multiple benefits including: sector addressed greenhouse gas emission reduction potential, financial feasibility, timeliness, consistency with city approvals and Community Sustainability Commission input.

Platinum

4. The city created the Community Sustainability Commission (CSC) that is charged with implementing the Climate Action Plan. The CSC created an Education + Outreach workgroup that enlists participation from schools, service groups and business organizations as well as other community partners. The workgroup partnered with Dominican University to host a five educational workshops, purchase sustainability-focused educational books and DVDs for the Benicia Public Library and help organize Earth Day events.
5. The City of Benicia has developed a Sustainable Benicia website that will provide an opportunity for interested residents to stay engaged in the sustainability projects and programs, educate residents and business owners about actions they can take to address climate change and reduce operating costs, various sustainable-focused events and various other resources.





Promoting Community and Individual Action Activities

Platinum

6. The city host sustainability related informational displays at city hall that educate residents about energy and water conservation practices and green building practices. These boards rotate depending on the time of year.
7. The city developed and began implementing the Benicia Green Business program, the local chapter of the Bay Area Green Business program. The program assists local business in adopting sustainable practices by applying to be certified and then filling out a sustainability questionnaire. The city is working with PG&E, city staff, Republic Services and others to assess businesses who wish to be certified. This process has also been rolled into the city's existing Business Resource Incentive program (a revolving loan sustainability program) so that participants can receive deserved recognition for their efforts.
8. The city launched SustainableBenicia.org to educate and inform Benicia residents about a variety of sustainability initiatives. This is a one-stop-shop for all things related to the city's Climate Action Plan and other sustainability projects.
9. The city is co-sponsoring the first Eco Awards recognizing residents, businesses, and community based organizations' efforts to reduce water, energy and waste.





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