

BEACON



SPOTLIGHT  
AWARD

WINNER

BEST PRACTICE  
ACTIVITIES



# City of Davis

## Sustainability Best Practice Activities



INSTITUTE FOR  
LOCAL GOVERNMENT<sup>SM</sup>

Promoting Good Government at the Local Level








# City of Davis

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

SPOTLIGHT AWARD		SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
Areas of Accomplishment				
	Agency GHG Reductions			2016 (28%)
	Community GHG Reductions	2016 (7%)		
	Agency Energy Savings	2016 (5%)		
	Natural Gas Savings	N/A	N/A	N/A
	Sustainability Best Practice Activities			2016
	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. In March 2016, the city council, along with Yolo County Board of Supervisors, unanimously agreed to form a Joint Powers Agency to purchase electricity for residents and businesses in the city and unincorporated area of the county through a community choice energy (aggregation) program. The JPA eventually will be open to other cities within Yolo County that wish to participate.

## Gold

2. In 2014, Davis approved a new outdoor lighting retrofit project. Starting in spring 2016, the city will install about 1200 park and greenbelt LED lights in more than 20 city parks and in 50 miles of greenbelts. The new lights will be bi-level lighting that saves more than 60% compared to an equivalent LED fixture and close to over 85% compared to the exiting high pressure sodium lighting system.
3. In 2014, Davis began replacing 2650 city-owned cobrahead streetlights with LED light fixtures, reducing energy use more than 70% over the existing high pressure sodium streetlights (and 30% energy savings over standard LED fixtures). The project cost \$1.2 million and was completed in August 2015.

## Platinum

4. Working with volunteers from Cool Davis, a local non-profit dedicated to helping the city implement its Climate Action Plan, the City of Davis is developing a program designed to assist and encourage residents whose HVAC systems need replacing to incorporate energy efficiency retrofits into HVAC repair or replacement decision and to install higher energy efficient HVAC units when the option works for the homeowner.
5. Davis developed an energy efficiency and alternative energy roadmap for the city. Known as the Davis FREE (for Future Renewable Energy and Efficiency) project, it provides background demographic and building data to enable Davis to plan future energy efficiency and renewable energy projects that are relevant to the Davis community. The final report provides a plan to help Davis move from “where we are now” to “where we want to be in 2030.”
6. Davis participates in the Yolo PACE program, which offers Davis residents energy efficiency and water conservation financing.
7. In the early 1990s, Davis was one of the first cities in the country to pilot and then retrofit its traffic signals to LEDs.







# Water & Wastewater Systems Activities

## Silver

1. Davis offers free water conservation workshops for residents and businesses. These include topics such as: the ABCs of sustainable landscaping, turf removal, plant selection, optimizing irrigation systems and other topics. For part of this effort, the city partners with the UCD Arboretum to offer workshops on drought tolerant gardening.

## Gold

2. For homeowners who take the “home water conservation pledge,” the city offers free “Save Davis Water” yard signs.
3. The city’s Public Works department offers residences and businesses assistance through its free leak detection program.

## Platinum

4. Davis has completed or is underway with a number of activities designed to reduce water use at city parks, greenbelts, other open space areas and streetscapes the city maintains.
5. In 2014, Davis implemented the WaterInsight program. For households that want to participate, the personalized program reports detailed household water use and compares it to homes of similar size, helping residents gain a clear understanding of how water use reductions can be made.
6. In 2014, Davis passed an ordinance allowing installation of grey water systems in Davis homes. Grey water is water collected from sinks (excluding the kitchen sink), showers, bathtubs or washing machines that can be recycled for uses such as landscape irrigation or toilet flushing.
7. The city has continuously implemented a policy to improve the energy efficiency of the pumps and motors throughout the city’s water system, thus saving energy and making the system run more efficiently.
8. Davis has an integrated storm water retention system that uses storm water runoff to recharge the groundwater and improve urban wildlife habitat and provide recreational opportunities for Davis residents. These include the West Davis and Northstar ponds.





# Green Building Activities

## Silver

1. Davis has been a national and state pioneer in promoting green buildings, energy efficiency and sustainability. In 1972, the city adopted the Davis Energy Conservation Building Code, designed to reduce heat gain in the summer and heat loss in the winter. The Davis building code became the model for California's subsequent Title 24 building code.

## Gold

2. In the 1980s, Davis purchased the old school district headquarters building and retrofitted and restored it to serve as the new city hall. An innovative "re-use" project for its time, green building features included energy efficient lighting, re-use of the existing building roof tiles combined with new tiles, water efficient features and landscaping.
3. Since the early 2000s, Davis has required new development projects to exceed Title 24 by 25% (also known as a reach code).

## Platinum

4. Davis adopted a Green Building ordinance in in the early 2000s that exceeded state standards. The city has since adopted Tier 1 of CalGreen and is considering adopting a Zero Net Energy reach code for new construction in advance of the state's 2020 standard.
5. Davis has helped to create a community and government climate that supports innovative building design and construction by local developers and residents.
6. The city supports and encourages innovative green building design efforts by local architects, engineers and contractors that feature alternative heating and cooling systems, such as ground source heat pump that uses natural cooling for radiant heating and cooling. This includes "Parkview Place," an innovative home that won the Cool Davis Climate Solutions Award.
7. As part of the upgrade of the multi-modal train station, Davis used straw bale construction for seating outside of the building. This was part of a civic arts project at the hub, funded through the city's art in public places program.





# Waste Reduction and Recycling Activities

## Silver

1. 1974, Davis was one of the first cities in California to offer residents curbside recycling. Decades before California adopted broad recycling requirements for cities and counties, Davis residents and businesses have enjoyed single and multi-family and business recycling opportunities, as well as curbside organics collection.

## Gold

2. Since 2001, the city's recycling program has teamed up with local apartment association and apartment managers to encourage reuse of items and reduce the amount of waste that happens during the annual August move-out. Davis Recycling Department staff sets up donation stations at participating apartment properties, and residents donate items they no longer want or need. Local non-profit groups and other apartment residents stop by and take the items they want.
3. In May 2011, the Recycling program and Davis Waste Removal started a pilot program to test food scrap collection program to carefully evaluate all aspects of collecting food scraps from commercial customers in Davis and to determine the feasibility of a larger commercial program. The program is scheduled to expand citywide in July 2016 as part of the city's new organic waste program.

## Platinum

4. Davis offers workshops for residents on topics such as backyard composting and vermiculture to reduce waste and promote healthy living.
5. Through the city's franchise with Davis Waste Removal, Davis residents can drop off and recycle "bulky items" such as couches, appliances and other hard to get rid of items.
6. Adopted in 2007, the city's Construction and Demolition (C&D) ordinance requires all applicable construction, renovation and demolition projects to divert at least 50% of C&D waste from the landfill through recycling, reuse and/or waste reduction.
7. In 2013, Davis adopted a single-use carry out (plastic) bag ordinance.
8. Davis implemented a program to reduce city employee paper use by 25% by using duplex printing, reducing the number of printing devices available and evaluating employee education needs.







# Climate-friendly Purchasing Activities

## Silver

1. Davis purchases 100% recycled content paper for all city use.

## Gold

2. Beginning in about 2005, Davis eliminated using paper for city council agenda packets.
3. Since the early 1990s, Davis has required consultants responding to RFPs to use paper with minimum recycled content.

## Platinum

4. The city has a policy not to purchase single serving bottles of water for city events or facilities.
5. Where feasible, the city encourages vendors and caterers of city events to use compostable plates and utensils.
6. Davis implemented a Green Fleet program beginning in the 1980s with the purchase of fuel efficient vehicles. Currently, the city has more than 20 alternative fuel vehicles in its fleet.





# Renewable Energy and Low-Carbon Fuels Activities

## Silver

1. Davis installed a solar PV system at the city's wastewater treatment plant in 2010 and a PV system on the veteran's community center in the early 2000s. The wastewater treatment plant array consists of 3,500 solar panels, covering about six acres and produces 1.7 million kWh, enough to run most of the plant's electricity demand per year. The community center array is approximately 12kW and off sets a majority of the building's electricity use.

## Gold

2. In 2001, Davis entered into an agreement with the PVUSA solar array to off-set the electricity use on over 45 city electricity accounts, including city hall and many of the city's municipal water wells. The PVUSA site was designed as the 1<sup>st</sup> grid tied utility scale solar plant and continues to serve as an important research facility providing data on solar panel performance and longevity.
3. Since the early 1990s, instead of natural gas, the city's wastewater treatment plant uses methane gas generated at the plant to help power the plant's digesters.

## Platinum

4. Working with volunteers from Cool Davis and representatives from the local solar contractor community, Davis is developing a program to target potential homeowners interested in installing solar PV systems on their roofs. As part of the effort, they are preparing consumer education information about items to consider when installing solar PV.
5. Davis is compiling a list of local area contractors that provide solar PV and solar thermal services for Davis residents.
6. In 2014, Davis adopted an ordinance that requires certain new residential housing and duplexes built after January 1, 2015 to install solar PV systems. The ordinance generally applies to any new development that requires a tentative map approval. As of the end of 2015, 2,152 rooftop solar installations occurred since 1999, with 1717 installs since 2011, including 442 in 2015.
7. The Davis Climate Action and Adaptation Plan, adopted in 2010, set a goal of producing 5% of the peak electricity used in Davis (2.6Mw) from local renewable energy sources by 2015. The community exceeded this goal by installing over 2,000 solar PV systems in the last five years that generate 29.6 Mw.





# Efficient Transportation Activities

## Silver

1. Davis has been a pioneer in promoting bicycle use and building a network of connected bike paths within the city. In 1967, Davis unveiled the first bike lanes in the country. Recognized for its leadership, Davis was the first city to receive the platinum level friendly community award from the League of American Bicyclists. It received the designation again in 2016.

## Gold

2. In the mid-1990s, Davis was the first city in the country to install bicycle signal heads on traffic signals at key intersections.
3. In 2014, Davis adopted its new Bicycle Action Plan, called "Beyond Platinum Bicycle Action Plan."

## Platinum

4. Since the 1970s, Davis has partnered with the University of California, Davis student association (ASUCD) in providing transit service for students and city residents. Called "Unitrans", the service initially utilized two vintage red double-decker London buses. The vehicle fleet now includes 48 more traditional buses (painted red) that travel over 19 routes throughout the entire city and helps reduce car use by students living off campus in apartments and other Davis residents. UCD undergraduate students, city employees, seniors (over 60) and others ride Unitrans for free with valid identification and permits.
5. The city offers a commuter bike loan program for city employees.
6. In 2014, Davis completed a new bicycle lane program on city streets to better integrate bicycle traffic with vehicular traffic. The city has about 110 miles of bike lanes on all major streets, numerous grade separations for bicycles and pedestrians, and several bicycle and pedestrian only undercrossing and overcrossings to assist bicyclists cross railroad tracks and freeways, including Interstate 80 and State Highway 113, both of which run through the city.
7. In 2015, Davis opened a redesigned "complete street" section of a major cross city artery that runs through the downtown area. The "road diet" redesign enables autos, bicycles and pedestrians to travel more safely and efficiently.





# Efficient Transportation Activities

## Platinum

8. In the 1990s, Davis completed a multi-modal hub at the old train station. Complete with local art and seating made with recycled material, the hub hosts transit services from Amtrak, Unitrans, Greyhound, Yolo Bus, and Regional Transit. The hub also provides parking for hundreds of bicycles, thus encouraging UC Davis students and others to bike to the hub when using the hub's transit services.
9. Davis has installed public EV charging stations in various locations in the city to encourage the adoption and use of electric vehicles. The city is completing an EV charging plan funded by the Energy Commission that will include requirements and guidance for public and private development projects that include EV charging stations.
10. Davis has several programs to promote safe bicycle and walking programs by youth and older residents, including "Street Smarts" and "Safe Routes to Schools."
11. Davis and Unitrans offer a "Safe Routes to Sports" program, which encourages students and city residents to use Unitrans buses to go to the city's numerous sports fields. The program's motto is "let the bus carry your gear for you."
12. The city's "Request a Bike Rack" program allows downtown businesses to request that the city install a bike rack in front of the business (on the city managed sidewalk and rights of way), thus supporting a pedestrian and bike friendly community and economic development at the same time.
13. In 2015, the city and Cool Davis formed a transportation planning task force with representatives of local and regional transportation organizations, including the University of California, Davis, the City of Davis, local non-profits, businesses, Yolo Bus, and Regional Transit. The purpose of the task force is to identify mutual goals and gaps in programs and services. The goal is to develop funding and collaborative structures to reach the mutual goals to reduce single vehicle occupancy travel, increase the use of transit and active transportation modes and reach common greenhouse gas reduction goals.





# Land Use and Community Design Activities

## Silver

1. For more than 50 years, Davis has been a pioneer in sustainable land use and community design policies and practices. For example, Davis has pursued a land use and development pattern to encourage reduction of transportation miles by locating shopping centers, schools, and other common destinations within neighborhoods.

## Gold

2. Since the mid-1970s, the city has required new residential projects to be oriented north-south to take advantage of cooling breezes in the evening.
3. In the 1970s, Davis approved Village Homes, a sixty-acre development that includes 242 single and multi-family residences. Considered to be the first sustainable development in the world, Village Homes includes innovative design features, such as passive solar in homes, narrow streets (to limit heat producing asphalt), communal gardens and open space, and two large communal parks, north-south orientation of homes, walking paths, community gardens, orchards and natural drainage infrastructure.

## Platinum

4. To address pedestrian, vehicle and bicycle congestion, Davis implemented the Third Street improvement plan. The area of Third Street, between A and B Streets, functions as a primary access point connecting the University of California, Davis with Downtown Davis and the plan was needed to accommodate the over 4,000 bicycles per day and large number of pedestrians using the area.
5. The city rezoned a former tomato processing plant for an infill multi-mixed use development project. The Cannery, which bills itself as California's first "farm to table community", will eventually include 547 homes with energy efficient and "livable design" features. All homes will be within 300 feet of a park or a trail that connects to Davis' bicycle network.
6. In order to reduce potential air quality and noise impacts of the proposed expanded Hwy 113 that runs north south through the city, Davis officials worked with Caltrans to make the final project below grade and not elevated. Highway 113 is major north south route in West Davis and is a heavily traveled highway for residents commuting to Sacramento, the San Francisco Bay Area and north to Woodland.





# Open Space and Offsetting Carbon Emission Activities

## Silver

1. In 2000, Davis voters approved the Open Space and Protection Special Tax Fund, which provides a stable source of long-term local funding to protect open space lands in the Davis planning area. Approved as Measure O by 70% of Davis voters, the parcel tax allows the city to acquire and maintain open space.

## Gold

2. In the 1980s, Davis amended its General Plan and zoning code to require new developments to include greenways and greenbelts.
3. In the mid-1970s, Davis was one of the first cities in California to host a farmers market. Located at the downtown Davis Central Park, the thriving market is open on Saturday mornings all year and Wednesday afternoons and evenings during the summer and evenings in the fall.

## Platinum

4. Davis has offered community garden space, administered by the city's Parks and Community Services Department, to residents for many years. There are currently 116 rentable plots, as well as a garden center, herb plot, perennial plot and donation garden. The annual rental fee allows the city to provide land, water and limited facility maintenance and administrative staff support to gardeners.
5. Since 1995, Davis has partnered with The Yolo Land Trust to facilitate more than a dozen successful conservation easements with private property owners. Davis has used Measure O funds to purchase conservation easements outright from a property owner or to leverage other funds to secure the conservation easement. As of 2016, Davis holds outright or co-holds more than 2500 acres in conservation easements to permanently restrict the use of the property as open space, agriculture or wildlife habitat.
6. The 400 acre Davis Wetlands Project is part of a growing effort throughout the Central Valley to preserve and restore native habitats and the wildlife they support. The Wetlands is one of the city's most valuable open space resources. It provides wildlife habitat, flood control, wastewater and stormwater treatment, recreation, and environmental learning opportunities.







# Promoting Community and Individual Action Activities

## Silver

1. In 2015, Davis signed an MOU with Cool Davis to help the city implement its Climate Action Plan and sponsor activities designed to help Davis residents reduce GHGs. Since 2010, the collaboration has resulted in numerous activities.

## Gold

2. On May 26, 2016, Davis and Cool Davis collaborated to host a sustainability summit to bring together community non-profit groups engaged in different sustainability activities. The goal of the summit is to help the diverse groups make connections to promote collaboration, as well as provide information on projects and resources offered by the city.
3. The city's public information office uses social media, such as the NextDoor platform, to engage residents about sustainability opportunities, including workshops, public forums, and other resources. The city's website provides residents and business owners with a wealth of information about sustainability policies, resources, workshops and links to related resources.

## Platinum

4. In 2009, Davis adopted a resolution, the Green Schools Partnership, to work with schools to promote sustainability. In 2010, Davis established a Green Business Partner program.
5. Since 2010, the city and Cool Davis have co-sponsor the annual "Cool Davis Festival", which offers attendees with tips and advice on how to reduce their impact on the environment and save money at the same time.
6. Since the 1990s, the city has awarded an annual environmental recognition award to deserving businesses, organizations and individuals who have demonstrated extraordinary care for the environment.
7. Davis participates in the Yolo Climate Compact, which brings together representatives to share information and talk about cutting-edge issues.
8. For the first year of the Cool California Challenge, Davis was "crowned" the California's Coolest City by the California Air Resources Board out of eight cities that began the competition.
9. The city has actively pursued partnerships with local community based organizations to implement sustainability related projects and programs, including Cool Davis, Valley Climate Action Center, Yolo Land Trust, Solano Land Trust, Davis Bicycles, and many more.





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