

STAFF REPORT

DATE: November 30, 2010

TO: City Council

FROM: Ken Hiatt, Community Development and Sustainability Department Director
Mitch Sears, Sustainability Program Manager

SUBJECT: Davis Climate Action and Adaptation Plan (CAAP) – Implementation Update

Recommendations

1. Receive Davis Climate Action and Adaptation Plan (CAAP) implementation update;
2. Adopt the attached resolution authorizing the City Manager take the actions necessary to participate in the California Energy Commission funded Energy Technology Assistance Program (ETAP), making the City eligible for energy efficiency rebates through the program.
3. Items for future consideration (no action recommended at this time):
 - Identification of a financing strategy to fund actions to reduce local GHG emissions;
 - Establishment of a voluntary green power certificate program offered through the City's existing utility billing system that is cost neutral to the City.

Fiscal Impact

No fiscal impact related to this update report. Authorization to participate in the ETAP program will result in potential savings on energy efficient lighting retrofits and other technologies of \$1,000's of dollars. Fiscal impacts of individual CAAP actions that require additional Council action will be analyzed as they are brought to Council for approval.

Plan Financing

To date, progress on implementing CAAP actions have relied on a combination of limited financial resources. In assembling the initial actions included in the year-one work plan summarized in this report, staff has focused on actions that require little to no additional expenditures by the City. Even so, as noted below, progress lags on important low cost actions due to limited availability of qualified staff and funding. To augment this approach, staff has spent significant time identifying and applying for federal and state grants, initiating volunteer based outreach, and utilizing student-interns to fill critical staffing gaps.

Staff is suggesting that a CAAP financing plan be developed as part of the annual budgeting process beginning in fiscal year 2011/12. Additional information on overall plan financing is included below.

Background

The City Council adopted the Davis Climate Action and Adaption Plan (D-CAAP) in June 2010. The Plan is designed to place the community on a path to achieve the local greenhouse gas emission reduction targets adopted by the City Council in November 2008. The Plan is designed to bring about system level changes in Davis over the next five years that both reduce current GHG levels and prepare the community for a low carbon future and economy. The 80+ actions identified in the plan were prioritized and a year one implementation work plan was developed.

The purpose of this report is to update the Council on progress toward implementing the CAAP year one work plan. The tables in the next section provide summary information on activities related to each year one action and timelines for expected completion, if appropriate. As expressed to the Council at the time of adoption (and other advisory groups involved in the development of the plan), the Plan is not intended to be static. Specific actions may be modified and/or recommended for replacement as new information on effectiveness, cost, longevity, etc. is identified by the City. As identified in the tables, minor modifications are recommended for several year one actions.

Action	Status	Timing	Notes
Mobility Action 1: Establish a Mobility Advisory Commission (“MAC”)	The Community Development and Sustainability Department Transportation Planning Group is developing recommendations on a mobility plan that prioritizes projects and the establishment of an advisory commission.	CDS staff anticipates bringing recommendations to the Council on December 7 th .	The Transportation Planning Group was formed to support the City’s established efforts to reduce vehicle use in Davis. Many of the anticipated priority actions of this group overlap and support local GHG emission reduction.
Mobility Action 2: Establish Community Car Share Program	Pilot program with Zipcar in operation Fall 2010. Current utilization rate at approximately 30%.	Pilot program began operation Fall 2010. Amendments to contract to be considered by Council at December 14 th meeting.	Pilot program scheduled for reassessment in Summer 2011.
Mobility Action 3: Determine and publish safe bicycle routes to schools.	Discussions with DJUSD underway. As part of Mobility Action #1 above, staff is recommending that the emphasis of this action be shifted from safe routes to	No completion date identified	

Action	Status	Timing	Notes
	<p>schools to the reduction of vehicle trips to schools.</p> <p>This, in combination with efforts to further increase bike/ped safety, more directly addresses GHG emission reduction.</p>		
<p>Mobility Action 4: Participate in regional planning to reduce commuting and GHG emissions</p>	<p>Continuation of existing engagement by the City in regional transportation and land use planning.</p> <p>Examples of recent engagement by the City include: (1) comment on implementation of SB 375, statewide landuse and transportation planning and (2) SACOG Metropolitan Transportation Plan public outreach events (UCD Oct 2010).</p>	<p>Ongoing</p>	
<p>Mobility Action 5: Develop a plan to de-carbonize personal transportation in Davis</p>	<p>The Community Development and Sustainability Department Transportation Planning Group is developing recommendations on a mobility plan that prioritizes projects and the establishment of an advisory commission.</p> <p>Elements of the prioritized projects are anticipated to address this action.</p> <p>As a precursor to adoption of the prioritized projects list, staff is working to upgrade existing electric vehicle infrastructure to accommodate the anticipated increase in demand as new EV and plug-in hybrids reach the marketplace in the coming</p>	<p>CDS staff anticipates bringing recommendations to the Council as part of the comprehensive mobility plan in 2011.</p> <p>Upgrades to existing EV charging stations are anticipated to come before Council in late 2010/early 2011.</p>	<p>The Transportation Planning Group was formed to support the City's established efforts to reduce vehicle use in Davis. Many of these anticipated actions of this group overlap and support local GHG emission reduction.</p>

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<p>Mobility Action 6: Incorporate the use of biofuels into local public agency fleets as appropriate</p>	<p>months. No progress on this action. Early discussions regarding City fleet use of biofuels have not progressed beyond preliminary identification of equipment reliability and infrastructure needed to support testing of the alternative fuel.</p>	<p>No timeline set.</p>	
<p>Energy Action 1: Establish a financing district for residential properties for energy efficiency (AB 811)</p>	<p>The City was a pilot community in the municipal financing program California First. After Fannie Mae and Freddie Mac established restrictive lending interpretations on AB 811 type assessments, the California First program was de-funded by the California Energy Commission. The City and other partnering communities are now included in the planned contract for the \$33 million Energy Upgrade California Program, a comprehensive, statewide energy efficiency and renewable energy building improvement program sponsored by the Energy Commission, the Public Utilities Commission, and utilities.</p>	<p>Initial statewide information website established. Davis residents can access energy efficiency and rebate information on-line.</p>	<p>A financing system such as a property assessed clean energy (PACE) can be integrated into the Energy Upgrade California Program when it becomes available.</p>
<p>Energy Action 2: Participate in Yolo Energy Watch program</p>	<p>The Yolo Energy Watch (YEW) program helps Yolo County residents, businesses, nonprofits, and local governments implement energy savings measures, leading to reduced energy usage, lower utility bills, and fewer greenhouse gas emissions. Use the links for "Residential"</p>	<p>Initiated in Summer 2010 by the Yolo County Board of Supervisors on behalf of all county residents and businesses.</p>	<p>City representatives participated in the development of the program in 2009/2010.</p>

Action	Status	Timing	Notes
	<p>or "Business" to learn more about the programs, incentives, and rebates available to increase your energy efficiency potential.</p>		
<p>Energy Action 3: Participate in establishment of a local non-profit to assist with energy efficiency/climate action information center</p>	<p>The Valley Climate Action Center (VCAC) has been established to provide information and resources on local and regional initiatives designed to increase efficiency and reduce GHG emissions.</p> <p>VCAC has sponsored a number of community forums related to these objectives. These forums have been cosponsored by the City.</p>	<p>VCAC was formed in 2009.</p>	<p>City representatives provided early input on the formation of VCAC.</p>
<p>Energy Action 4: Establish a local financing district for solar energy production (AB 811)</p>	<p>Program on hold until Federal regulatory issues are resolved – see Energy Action #1 above.</p> <p>The City was a pilot community in the municipal financing program California First. After Fannie Mae and Freddie Mac established restrictive lending interpretations on AB 811 type assessments, the California First program was de-funded by the California Energy Commission. The City and other partnering communities are now included in the planned contract for the \$33 million Energy Upgrade California Program, a comprehensive, statewide energy efficiency and renewable energy building improvement program sponsored by the Energy Commission, the Public</p>	<p>Initial statewide information website established. Davis residents can access energy efficiency and rebate information on-line.</p>	<p>A financing system such as a property assessed clean energy (PACE) can be integrated into the Energy Upgrade California Program when it becomes available.</p>

Action	Status	Timing	Notes
	Utilities Commission, and utilities.		
Energy Action 5: Develop local solar farm(s) (10 Mw)	The City continues to work with the PVUSA lease holder to expand the solar power production on the site. In addition, the City has signed exclusive right to negotiate agreements with two solar power producers to explore the development of solar power projects on other City owned property. If all three projects are completed total power production is estimated at 25 to 30 Mw.	If the City chooses to pursue these projects, the site(s) are estimated to come on-line in 2012.	The City Council is scheduled to hold a workshop on community scale renewable power production on November 30, 2010 to explore the technical, financing, and policy issues/options for the development of community scale renewable energy projects on City owned land.
Land Use & Buildings Action 1: Adopt GHG thresholds and standards for new non-residential buildings in Davis that include credit for zero net energy.	CDS Department staff are scheduled to begin investigating methodology to set reasonable and achievable standards for non-residential projects.	Initiate research in late 2010.	The objective of this action is to set comparable GHG standards for non-residential projects as those established by the City for residential projects in early 2010.
Land Use & Buildings Action 2: Adjust standards for existing GHG thresholds and standards for new residential buildings in Davis.	CDS Department staff are scheduled to begin analysis of adjusting the standards for existing GHG thresholds and standards for new residential buildings.	Initiate process in late 2010.	The City's adopted approach for GHG standards is to reduce allowable limits each year to gradually meet mid-century goals.
Land Use & Buildings Action 3: Locate homes	Continuation of existing City policy.	On-going	Related to Mobility Actions above and work of CDS Department's Transportation

D-CAAP Update

Action	Status	Timing	Notes
within walking/biking distance of essential services			Planning Group.
Consumption and Waste Action 1: Adopt Zero-waste goal for Davis and begin planning process.	Preliminary research initiated by City staff.	Undetermined	Staffing constraints limit ability to make progress on this action.
Consumption and Waste Action 2: Establish a local financing district for water conservation (AB 811)	Program on hold until Federal regulatory issues are resolved – see Energy Action #1 above. The City was a pilot community in the municipal financing program California First. After Fannie Mae and Freddie Mac established restrictive lending interpretations on AB 811 type assessments, the California First program was de-funded by the California Energy Commission. The City and other partnering communities are now included in the planned contract for the \$33 million Energy Upgrade California Program, a comprehensive, statewide energy efficiency and renewable energy building improvement program sponsored by the Energy Commission, the Public Utilities Commission, and utilities.	Initial statewide information website established. Davis residents can access energy efficiency and rebate information on-line.	A financing system such as a property assessed clean energy (PACE) can be integrated into the Energy Upgrade California Program when it becomes available. PACE programs can be designed to include water conservation measures.
Consumption and Waste Action 3: Permit greywater use	Continuation of existing policy	On-going	State law permits small scale grey-water systems.

Action	Status	Timing	Notes
<p>Consumption and Waste Action 4:</p> <p>Establish a baseline energy use for water production, use, and processing (kWh/gallon) and develop specific actions to move toward a zero energy use water system.</p>	<p>Completed as part of Davis Task Force on Energy Issues in February 2004.</p>	<p>On-going</p>	<p>Approximately 1.18 kWh/1,000 gallons delivered and 1.33 kWh/1,000 gallons treated wastewater.</p> <p><i>Davis Task Force on Energy Issues Final Report - February 2004.</i></p>
<p>Food and Agriculture Action 1:</p> <p>Develop policies to encourage community based farms, including demonstration projects</p>	<p>The Open Space and Habitat Commission is working in collaboration with UCD researchers to develop guiding recommendations for the establishment of community based farms.</p>	<p>On-going</p>	<p>In a related action in February 2010, the Council directed staff to develop a General Plan amendment related to community farms and new development.</p>
<p>Community Engagement Action 1:</p> <p>Develop and implement a multi-year plan to engage 75% of households to participate in a household based carbon reduction program</p>	<p>The City is working with the Cool Davis Initiative to develop and execute a community engagement program beginning in January 2011. The objective is to begin working toward the action goal of engaging 75% of Davis households in GHG reduction activities.</p> <p>The Cool Davis Initiative is a coalition of Davis individuals, organizations, and businesses formed to promote community action on GHG emission reduction. The primary focus</p>	<p>On-going.</p> <p>Community engagement program launch scheduled for January 2011</p>	<p>The City's EPA grant application to implement the community engagement program was denied in late October. The Cool Davis Initiative and the City are attempting to identify alternative funding opportunities.</p>

D-CAAP Update

Action	Status	Timing	Notes
	<p>is to make household level GHG reduction as effortless, cost effective and scalable as possible.</p> <p>The CDI organized the recent Cool Davis Festival at the Veterans Memorial Center that attracted 1,500 visitors.</p>		
<p>Government Operations Action 1: Install a total of 1.5 Mw PV at City facilities (wastewater treatment plant, other City Facilities)</p>	<p>A 775Kw solar array was installed at the waste water treatment plan in July, covering the majority of the power needs at the WWTP.</p>	<p>July 2010</p>	<p>Additional opportunities for solar PV projects benefiting City facilities are being explored as part of the current investigation of community scale solar projects noted in Energy Action #5 above.</p>
<p>Government Operations Action 2: Install efficient streetlights</p>	<p>Contracts with PG&E for the initial phase of a streetlight retrofit (300 streetlights) have been signed.</p>	<p>Retrofit anticipated to be completed in Spring 2011</p>	<p>Future phases of streetlight retrofit are in the planning stages.</p>
<p>Government Operations Action 3: Energy efficient exterior lighting, parking lots, greenbelts, etc.:</p>	<p>The City has issued an RFP for retrofit of downtown public parking lots and the City parking garage at 1st and F St.</p>	<p>Downtown parking lot lighting retrofit project anticipated to be completed in Spring 2011.</p>	<p>Future phases of off-street lighting retrofits are in the planning stages (e.g. greenbelts, parks, etc.).</p>
<p>Government Operations Action 3: Continue to transition City fleet to higher efficiency vehicles</p>	<p>Overall fuel use in the City fleet is down 8% since FY 2007/08.</p> <p>8% of the City fleet is hybrid/EV (22 of 279 total vehicles). The City also placed its first work bike into service in FY 09/10. Two more work bikes will be added to the fleet in Spring/Summer</p>	<p>On-going</p>	<p>Hybrids and alternative fuel vehicles are considered during the City's regular vehicle replacement schedule.</p>

D-CAAP Update

Action	Status	Timing	Notes
	2011.		
Government Operations Action 4: Expand urban forest	The City has planted over 900 trees since July 2007.	On-going	Staff is analyzing locations for additional urban forest projects on City owned property.
Advocacy Action 1: Seek legislation to allow Davis to pilot a renewable energy program allowing property owners to invest in and directly benefit from a local renewable energy project through a municipal financing district. Cross reference – Energy.	This action is related to the PACE program and faces similar delays due to federal regulatory issues.	On-hold	Preliminary conversations with members of the renewable energy industry have indicated an interest in exploring this concept.
Climate Change Preparation Action 1: Prepare an assessment of climate-related vulnerabilities of local food, water and energy supplies, infrastructure and the public health system.	Preliminary research on analysis methodologies has been initiated. The assessment has not been initiated.	No timeline set.	Initial guidance provided by the State of California Climate Adaptation Strategy to guide assessment and establish priorities.
Plan Administration Action 1: Prepare a 5 year work plan to	The 5 year work plan has not been initiated.	Spring/Summer 2011	Initial staff efforts are focused on implementation of year one actions (summarized in this

Action	Status	Timing	Notes
implement Phase II and III actions and perform plan review.			table). See fiscal planning discussion below.
Plan Administration Action 2: Form Plan Technical Advisory Committee to advise City on plan implementation and monitoring.	Preliminary discussions with several potential members have been initiated. TAC structure and function has not been determined.	No timeline set	TAC anticipated to include Natural Resource Commission members, Climate Action Team members, and UCD subject matter experts.

Financing for Plan Implementation

To date, progress on the actions described above have relied on a combination of limited financial resources. In assembling the initial actions included in the year-one work plan summarized in the table above, staff has focused on actions that require little to no additional expenditures by the City. Even so, as noted in the table, progress lags on important low cost actions due to limited availability of qualified staff and funding. To augment this approach, staff has spent significant time identifying and applying for federal and state grants, initiating volunteer based outreach, and utilizing student-interns to fill critical staffing gaps.

Staff recognizes that current fiscal constraints limit the City’s ability to direct resources to this or any other program. Given the current fiscal landscape, staff suggests that the less than ideal approach to plan implementation of year-one actions continue, but that the Council consider authorizing funds to develop a financing plan for the first five years of the CAAP. This financing plan would be developed as part of the five year work plan described in the Plan Administration Action #1 above. Staff suggests that a CAAP financing plan be developed and presented as part of the 2011/12 budget process.

Staff notes that these fiscal challenges are not unique; all other climate action plans that have been researched struggle with implementation in both estimating costs and identifying stable funding sources to achieve needed GHG emission reductions. Staff also notes that the CAAP actions are designed to achieve the minimum GHG reduction targets identified by the City. These targets are based on the best available climate science and represent Davis’ contribution to this global challenge. If the actions in the CAAP are not implemented (or equally or more effective actions), Davis will need to look to others to fill the gap.

Additional Issues

Action item:

- Energy Technology Assistance Program (ETAP)

In February 2010, the CEC awarded funding to the Energy Technology Assistance Program (ETAP). The City of Davis was one of 21 local government entities to express interest in the program. ETAP's goals include specifying and implementing advanced energy efficiency technologies in local government facilities state-wide and developing project case studies. The targeted technologies include wireless lighting controls, wireless HVAC controls, and occupancy-sensor controlled bi-level lighting in parking garages and parking lots.

In order to participate in the financial incentives programs associated with ETAP, the City is required to enter into an agreement specifying its commitment to cooperate with the program administrators in carrying out the program and California Energy Commission's goals. Staff has reviewed the attached agreement and is satisfied that it does not obligate the City to participate in the program or commit significant staff resources to qualify for the incentives. Action by the City Council will authorize the City Manager to sign the ETAP Participation Agreement.

Future action item

- Green power certificate program

Currently, PVUSA produces Renewable Energy Credits (REC's). Staff is introducing the concept of developing a program with the PVUSA leaseholders to offer these local REC's directly to Davis energy users through the City's existing utility billing system. The voluntary program would be designed to be cost neutral to the City. Program design and implementation program would be presented to Council for approval at a later date.

Attachments

1. Resolution authorizing participation in the ETAP Program.
2. ETAP Participation Agreement.

RESOLUTION NO. 10-XXX, SERIES 2010

RESOLUTION BY THE CITY OF DAVIS AUTHORIZING PARTICIPATION IN THE CALIFORNIA ENERGY COMMISSION FUNDED ENERGY TECHNOLOGY ASSISTANCE PROGRAM (ETAP)

WHEREAS, the City of Davis recognizes that it is in the interest of the local, regional, state, and national economy to stimulate the economy; create and retain jobs; reduce fossil fuel emissions; and reduce total energy usage and improve energy efficiency within Davis; and

WHEREAS, State Energy Program (SEP) funds were made available through the California Energy Commission's SEP for grants to eligible local governments for energy efficiency, energy conservation, renewable energy, and other energy related projects and activities authorized by the American Recovery and Reinvestment Act of 2009 ("ARRA"); and

WHEREAS, SEP funds were awarded to the Energy Technology Assistance Program (ETAP) to provide technical assistance and financial incentives to accelerate the uptake of advanced energy efficient technologies in the local government market; and

WHEREAS, the City of Davis is eligible for ETAP assistance to support its efforts to increase energy efficiency and reduce the cost to operate its lighting and facilities; and

NOW, THEREFORE, BE IT RESOLVED, that the Davis City Council authorizes participation the ETAP program and authorizes the City Manager to sign an ETAP Participation Agreement (Exhibit 1), and take all other actions necessary to participate in the program.

PASSED AND ADOPTED by the City Council of the City of Davis on this 30th day of November, 2010 by the following vote:

AYES:

NOES:

Don Saylor
Mayor

ATTEST:

Zoe S. Mirabile, CMC
City Clerk

Energy Technology Assistance Program (ETAP) Participation Agreement

The Energy Technology Assistance Program (the Program) is a statewide program administered by Energy Solutions that provides technical assistance and financial incentives to accelerate the uptake of advanced energy efficiency technologies in the local government market. Program funds originated in the American Recovery and Reinvestment Act of 2009 (ARRA). The California Energy Commission (CEC) disburses the ARRA funds allocated to California's State Energy Program (SEP) through its statewide Energy Upgrade California initiative. To provide an independent analysis of the impacts of SEP programs, CEC staff or CEC subcontractor staff may conduct site visits following project implementation. ETAP is expected to operate from September 2010 – March 2012, but the provision of ETAP services and incentives is subject to availability.

As a condition of participation in the Program, City Of Davis, agrees to do the following:
Local Government Agency

1. Designate a primary contact to facilitate the Local Government's participation in the Program and commit sufficient staff time to support the successful delivery of the Program's services.
2. Provide access to facilities and information in a timely manner as necessary to enable ETAP staff to successfully deliver the Program's services.
3. Authorize the release to the Program of PG&E billing and usage data necessary to evaluate the savings potential for eligible technologies.
4. Consider implementing the recommended energy savings strategies that are economically and operationally feasible.
5. Procure services and equipment for implementation of recommended energy savings strategies in manner consistent with all relevant requirements imposed by ARRA and the CEC (see reverse side of this form).
6. Provide documentation of all services, materials, and costs procured for the purpose of implementing recommended energy savings strategies including total project costs, internal and external total labor costs, and the make, model, and quantity of all installed equipment.
7. Consider allocating any federal tax deductions associated with implemented projects identified, designed, or recommended by the Program to Cohen Ventures, Inc. dba Energy Solutions pursuant to I.R.C. Section 179D.
8. Cooperate with ETAP and CEC efforts as required to monitor projects and verify energy savings that result from participation in the Program, including providing access to facilities after installation.

This Enrollment Form shall be effective as of the date it is signed by both parties. These conditions shall remain in effect until the Program's services are fully delivered or until March 31, 2012, unless otherwise terminated. My signature below indicates that I agree to the above conditions, and I am authorized to sign this Form on behalf of this Local Government.

City of Davis <small>Local Government Agency Name</small>	
Local Government Agency Representative Name	Title
Address	Phone
Signature	Date
Forest Kaser ETAP Representative Name	
Signature	Date

Energy Technology Assistance Program (ETAP) Participation Agreement

ARRA and CEC Implementation Requirements

Funding for ETAP originated in the American Recovery and Reinvestment Act of 2009 (ARRA). The California Energy Commission (CEC) disburses the ARRA funds allocated to California's State Energy Program through its statewide Energy Upgrade California initiative.

In order to be eligible to receive a financial incentive for a project implemented through ETAP, the participating local government agency must obtain approval from an authorized ETAP representative for its plans for complying with the waste management and historical preservation requirements mandated by ARRA and/or CEC. To obtain approval, the agency must submit the following documents prior to the start of construction for each project for which an ETAP incentive is sought:

- Waste Management Plan (can be completed by the contractor installing the project)
- Historic Preservation Consultation Package

The above documents are available from ETAP upon request. Compliance with the above requirements does not abrogate or diminish any additional responsibilities the participating agency may have under any applicable federal, state, or local laws, including ARRA.