

County of Santa Clara Office of the County Executive



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DATE: March 10, 2011

TO: Supervisor Ken Yeager, Chairperson
Supervisor Dave Cortese, Vice Chair
Finance & Government Operations Committee

FROM: 
Emily Harrison
Deputy County Executive

SUBJECT: Office of Climate Action & Sustainability Quarterly Report

RECOMMENDED ACTION

Consider recommendations relating to the following subjects from the Office of Sustainability and Climate Action Quarterly Report.

Possible action:

- a. Accept Quarterly Status Report from the Office of the County Executive on Sustainability/Climate Action programs, projects and initiatives
- b. Recommend approval of membership in the statewide organization, Local Government Sustainable Energy Coalition to the Board of Supervisors
- c. Recommend to the Board of Supervisors approval allowing the Office of Sustainability to submit an application for the PG&E Innovator Pilot Grant Project, as summarized below in Paragraph II(G)

- d. Recommend to the Board of Supervisors approval to amend the ABAG-Energy Upgrade California Program as discussed below in Paragraph II(F)

FISCAL IMPLICATIONS

There are no fiscal implications in accepting this report.

REASONS FOR RECOMMENDATION

1. This quarterly report provides notice and key information regarding the County's sustainability and climate action programs, projects and initiatives, enterprise-wide;
2. Membership in the Local Government Sustainable Energy Coalition (LGSEC) offers a resource and venue that is uniquely responsive to FGOC and the BOS directives for (a) enhanced energy efficiency and innovation; and (b) greater stewardship and participation by the Office of Sustainability at regional and state levels. LGSEC' mission is to unite California communities to leverage best practices, develop long-term energy efficiency strategies, support delivery of renewable and sustainability energy, and to influence and shape energy policy at the state level;
3. The PG&E Innovator Pilot Grant Proposal, if awarded, offers an early opportunity for municipalities to opt in, and will serve as a meaningful launch to FGOC and BOS directive that the County assume greater leadership and stewardship with the municipalities in areas of climate action and sustainability. This opportunity was brought to the attention of the Office of Sustainability on short notice, and applications are due March 11th. Staff will bring a full and comprehensive report back to FGOC and the BOS, to elaborate upon the grant proposal information provided below in Paragraph II(G); and
4. Amending the County's current ABAG-Energy Upgrade California Program may drive greater consumer demand, recover a measure of the social equity that was lost when PACE was removed from the Program, and foster greater workforce development.

BACKGROUND

Part I – Sustainability/Climate Action -- Internal

Approach: The sustainability efforts of the Facilities and Fleet Department (FAF) are focused on developing ongoing energy and water efficiency efforts in County buildings, building green and resource-efficient new buildings, implementing the Climate Action Plan and the Environmental Stewardship Goals, and fostering employee interest and

participation in reducing the County's climate impacts.

Internal Projects & Initiatives:

A. On February 8, 2011, the County of Santa Clara Board of Supervisors approved the Martial Cottle Park Master Plan Project ("Park Plan"), a combined State Park General Plan and County Park Master Plan. The Project's provision of locally grown, sustainable agriculture and educational programs about sustainable farming implements the Board's Policy 8.0 on Sustainability. The Project will utilize sustainable energy and design in the development of Park facilities and in long-term operation and management of the Park, such as the use of solar, wind, passive solar and geothermal technologies as sustainable energy practices. The Project encourages the use of recycled/reclaimed water where appropriate, and the harvesting of rainwater and greywater for use in non-agricultural irrigation. The Project encourages on-site composting, mulching or reuse of plant debris and will have a strong recycling program.

B. The Santa Clara Valley Medical Center is in the process of constructing Bed Building 1 and moving into construction of the Services Building replacement, both of which are designed to be LEED GOLD buildings.

Bed Building 1 is designed to provide high performance standards associated with a healthy indoor environment along with energy and water efficiency, and will exceed the energy standards of Title 24 California Building Codes equivalent requirements for health care projects by 43% and result in a \$500,000 rebate from the Savings by Design program. The photovoltaic power system on Parking Structures 1 and 2 will provide approximately 1 MW of alternate energy source for the campus.

C. The Service Building Replacement design is expected to be 16-18% more efficient than California code requirements, reducing CO₂ by approximately 130 metric tons. A photovoltaic system and passive solar shading systems are integrated into the design to produce electricity and reduce heat gain and cooling demand. The design also reduces water usage by 30% by using current low flow fixtures. FAF staff has established Team Green, an interdepartmental facility and operations team with representation from HHS, Roads, Parks, DOC, Probation, FAF, ISD and DEH. The team meets monthly to discuss shared interests and sustainability projects, coordinate responses to referrals, discuss grant opportunities, and determine steps towards reaching the Climate Action Plan objectives and Environmental Stewardship Goals as they relate to facilities.

D. Through recent signal retiming and coordination the Roads and Airports Department has reduced vehicle idling on the expressways, saving, on an annual basis, over 350,000 hours of traveler delay, and nearly 300,000 gallons of fuel, representing over 45,000 pounds of air pollutants not emitted.

E. The Roads & Airports Department has begun to retrofit expressway safety lights with long life energy efficient inductive fluorescent electroliers. When fully implemented about

one-third of the County maintained lights will be consuming about 50% less energy with corresponding savings in billings resulting in a return on investment of approximately 5 years.

F. The FAF energy team and County Counsel negotiated solar Power Purchase Agreement (PPA) contracts which project nearly two megawatts, annual production of 3,000,476 kWh, and potential savings of up to \$1 million over the 20-year life of the PPA.

Sites are:

- a. 500 Tully Road
- b. 4745 Camino Arroyo Dr. Gilroy (VHC Clinic)
- c. 2310 N. 1st St.
- d. 2314 N. 1st St.

G. FAF's energy team and County Counsel also executed Qualified Energy Conservation Bonds (QECCB) to install solar PV power generating facilities with a capacity of 3.8 megawatts, at an annual production of 5,803,596 kWh, and projected 25-year savings of \$16 million over a conventionally-financed PPA. Sites are:

- a. 55 W. Younger Ave. (roof & parking lot of the Sheriffs facility)
- b. 70 W. Hedding (employee parking lot)
- c. 701 S. Abel, Milpitas (Elmwood Correctional Facility)
- d. 1555 Berger Drive
- e. 1993 McKee Rd. (VHC Clinic)

H. The County has been awarded a Strategic Growth Council grant in the amount of \$923,086 for a comprehensive xeriscape demonstration project at 70 W. Hedding Street, to reduce water usage and maintenance costs. The grant award covers four of the seven areas that we requested funding for: along the Hedding St. sidewalk, the corner parking lot, the area along First Street and the slope with redwood trees along the service road. This will provide a model of a commercial landscape that is water efficient for all the visitors who come to the Government Center.

I. The County has made progress at integrating LED lighting into its facilities. LED surgical lights have been installed at the VMC; LED security lights have been installed at Elmwood Correctional Facility; and the renovated East Valley Clinic will have one section that is entirely LED lighting. The Clinic lighting, as well as other efficiency measures is supported by PGE Savings by Design funding.

J. The County and the City of San Jose have collaborated on two projects: (1) Under the City of San Jose's ARRA-funded Silicon Energy Watch Program, the County has completed two lighting retrofit projects, with a projected annual reduction of 286,234 kWh and potential annual savings of \$21,481. (2) The City of San Jose, as part of their ARRA Grant will connect the cooling towers at 1555 Berger Dr. to the recycled water line. This is

currently in design with construction planned for 2011.

K. FAF secured a California Energy Commission grant for energy conservation projects in the amount of \$553,438 for two retrocommissioning projects and three lighting projects.

L. The Department of Environmental Health assisted Procurement in surveying staff to identify opportunities to deploy rechargeable battery technology in place of primary/one-time use batteries used in Department equipment. The Department has also began to use rechargeable batteries in headsets, replacing one-time use batteries and is tracking charge frequencies and effectiveness. Reusable batteries are one of the Environmentally Preferable Purchasing Policy target items.

Internal Projects & Initiatives in Development:

A. FAF is facilitating the interdepartmental process of developing policies and procedures for Zero Waste Events. The team of event planners requested a centralized place for all event information and policies, so, as part of the ZWE effort, an Intranet website is being developed: www.sccgovatwork/eventplanning. The policy will go to FGOC in May.

B. The County has launched the first step to benchmark its main facilities using Energy Star Portfolio, in support of County objectives under its Green Building Policy and Environmental Stewardship Goals, which require LEED and LEED for Existing Buildings Operations and Maintenance. FAF and Parks are working together, and utilizing the intern services of a SC University Engineering student for eight hours/week, to start the process of taking the Parks Admin Building through the LEED EBOM process.

C. FAF has researched and developed a Tree Planting Program for County unincorporated urban pockets to help the County move towards the Environmental Stewardship Goal of planting 1000 trees/ year. FAF is considering a possible contract with Our City Forest to implement this program.

Part II – Sustainability/Climate Action – External – Office of Sustainability

The Office of Sustainability became operational November 8, 2010. First-year directives and goals include:

- Create an internal Sustainability Executive Team
- Create a municipal forum among the Cities, with the goal toward greater County stewardship in climate action and sustainability matters
- Launch development of a countywide Sustainability Master Plan

- Extend the County's participation and representation in regional, state and national sustainability and climate action efforts
- Increase the County's outreach and education programming for climate action and sustainability
- Execute the County's performance in the ARRA-funded ABAG-Energy Upgrade California Program
- Pursue grant and alternative funding for sustainability-related programs, projects and pilots

In support of these objectives, the Office reports the following progress:

A. Internal Sustainability Executive Team (SET) -- Commitments to serve on the Sustainability Executive Team (SET) include Executive Directors from Planning and Development, Public Health, Facilities & Fleet, Roads & Airports, Agriculture and Environmental Management, Office of Women's Policy, and Parks & Recreation. In addition, the Office will incorporate counsel and/or participation from the Valley Medical Center and Santa Clara Water District administrations. In advance of formally convening SET, the Office is concluding a series of in-depth meetings with each executive to identify programs and current priorities, appreciate program complexity, and to discern key issues, including:

1. Key Sustainability Goals – a sharing of key sustainability goals identified by each member
2. Key Sustainability Challenges – a sharing of key sustainability challenges identified by each member
3. Discuss concept of a community web-based tool for sustainable info, ideas and recommendations
4. Ideally, what regional partnerships would each member like to develop or enhance?
5. Info each department would like to have or be referenced on the County's Sustainability website
6. Ways in which the Office of Sustainability may support departmental objectives

B. County-Cities Sustainability Team -- The Office has organized CAST (Climate Action & Sustainability Table), from representatives of each of the municipalities. As a precursor to CAST, the Office delivered a short address before the January meeting of the Santa Clara County Cities Association, providing an overview of the County's offer to exercise stewardship of collective climate and sustainability goals and objectives. Two

weeks later, CAST was launched, with majority municipal representation attending. Absentee members are challenged by time, staff and resource constraints, so the Office has reached out to those municipalities directly in order to ensure that all cities have a voice and participation. Overwhelmingly, the Cities identified five key areas in which they would like the County to take the climate and sustainability lead:

1. As lead agency in developing a countywide Sustainability Master Plan, with input and participation by the cities
2. As lead agency (for application, administration and programming) in grant proposals under which the cities may opt in (in progress, see Grants below)
3. To expand the County's Office of Sustainability website (<http://preview.sccgov.org/portal/site/osp>) to include a Resource library (e.g., latest studies, pilots, trends, technology, and best management practices) for use by the municipalities (being developed, in partnership with ISD)
4. Whenever possible, to provide technical assistance; and
5. As lead agency for creation and sharing of climate and sustainability marketing, branding, outreach and education materials (in early development)

C. Sustainability Master Plan -- The Office is presently laying the groundwork for building a countywide Sustainability Master Plan. These foundational efforts include:

1. Collaborative work with the municipalities
2. Fact-finding and information-sharing with the members of SET
3. Identifying potential partners among regional, public and private-sector institutions and organizations
4. Consultation with the contractor producing the region's Emergency & Hazard Mitigation Plan
5. Research on different approaches to modeling, metrics and calculating impacts
6. Extensive partnership and information-sharing with the Department of Public Health

D. Local, Regional, State and National Participation -- The Office has established links with and, in certain cases, participation in regional, state and national groups and organizations, including:

Municipal – In addition to the CAST Initiative (above, Paragraph B), the Office has established collaborative discussions with the City of San Jose, producing potential/initial collaborations

- i. Coordinate/Partner on current and ongoing Energy Program

- ii. Coordinate/Partner on legislative and policy matter as part of Regional Influence Team (direct contact Scott Green)
- iii. SB 375 Partnership
- iv. Water Resources Partnership -- City staff suggested the Office take a detailed tour of Water Pollution Control Plant, which is targeted for redevelopment

Regional – The Office has formed relationships (and in certain cases, member and/or committee participation) with various regional agencies and organizations, including Joint Venture Silicon Valley, Sustainable Silicon Valley, Silicon Valley Leadership Group, Bay Area Climate Collaborative, Joint Policy Committee, Climate Bay Area (specifically to support a regional adaptation plan), and Working Partnerships (with regard to the latter, see additional information in Paragraph H).

State – The Office was invited by Howard Choy, Los Angeles County Manager, to represent the County in the statewide organization, Local Government Sustainable Energy Coalition (LGSEC). The mission of LGSEC is to leverage local government agencies into a collective movement for state policies and programs that promote local sustainability and energy programs, to provide a centralized information and expertise resource, and provide a platform for local governments to communicate and advise at the state level for successful sustainability and energy policies. Membership is formalized through execution by the County Board of Supervisors, and verification by the County Counsel, of a Memorandum of Understanding and Fiscal Sponsorship Agreement (attached as Exhibits A and B, respectively). There is no unique fiscal impact associated with this action as the Office of Sustainability has provided for the membership cost in its existing budget.

In addition, the Office of Sustainability has joined the Local Government Energy Network of the Local Governments Council, meeting first on February 25, 2011 in Sacramento with legislative, California Public Utilities Commission, California Energy Commission, and other local government staffs for regulatory updates and strategic planning for future energy efficiency programs.

National – The Office of Sustainability met with Congressman Honda’s office to review the County’s sustainability goals and objectives, discuss grant activities, and to provide an overview of the County’s sustainability stewardship initiative with the municipalities. Congressman Honda’s office voiced strong support of the County’s activities, with particular emphasis on the CAST initiative. In addition, the Office has joined and participates in the following national organizations:

1. Urban Sustainability Directors Network (USDN) – in addition to resources available to members, and activities of general membership, the Office is also a member of special committees tasked for Policy and Innovation development.
2. National Association of Counties (NACO) – through the County’s membership, the Office is now active in NACO’s Green Government Program

3. EPA Districts 9/10 Minerals Management Program – the Office has joined the EPA’s Standards and Metrics Technical Advisory Committee, created to consider various approaches to measuring and benchmarking sustainable materials management. These include conventional systems of accounting for GHG emissions, water and other resource impacts, as well as emerging approaches based upon a “consumptive model” where the up-stream and down-stream resource impacts of an activity, infrastructure or policy are calculated

E. Outreach and Education Programming for Climate Action and Sustainability At present, this effort is most represented by energy efficiency outreach and education materials associated with the ABAG-Energy Upgrade California. Primary efforts over the 2nd quarter of 2011 will focus on developing the County’s Office of Sustainability website to include materials and information on multiple topics, including:

1. Water conservation habits and actions
2. Sustainable family menus
3. Water footprinting
4. Energy efficiency
5. Ecological footprinting, linked with a calculator for individual use
6. Sustainability information tailored to children and young adults
7. Reduced waste
8. Sustainable practices in the home that promote child health
9. Green infrastructure and urban forestry

F. ABAG-Energy Upgrade California Program – In February, the California Energy Commission approved the County’s revised budget. Simultaneously, the Office of Sustainability developed a draft Request for Proposal to engage marketing, reporting, and other programmatic services. This document is currently under review by the County Counsel. At the time of this FGOE meeting, the Office is preparing its first major marketing effort at the San Jose Home Show, McEney Convention Center, March 11-13. Despite these efforts, the Office of Sustainability is concerned that delays associated with the loss of PACE financing, delivery to the counties of marketing plans, implementation plans, marketing and promotion templates, and lack of coordination among the principal actors and utilities – coupled with the 3-4 month review period attached to program and budget amendments – will challenge full use and application of the County’s grant funding before the March 31, 2012 expiration of the grant. In order to apply the full funding provided to the County in a meaningful, strategic, productive and results-oriented manner, the Office of Sustainability is recommending an amendment to the County’s plan for

ABAG-EUC to reassign a portion of the current marketing budget (current marketing budget is \$1.312 million) to additional incentives or special-interest retrofits. The Office of Sustainability can also explore whether these incentives can be structured in a way to meet working families that were largely excluded from the program when PACE was suspended. For example, the Program may be amended to reduce the marketing budget (e.g., by \$400,000), and to shift that amount to incentives that would, for example, fund rebates to working families for specific appliances or energy-savings fixtures (such as furnaces, solar heaters, or attic fans) or residential home retrofits; or, in the alternative, finance a complete energy retrofit to a significant residential site of special use (children's shelter, assisted living facility, or as leverage to the Early Steps, Healthy Spaces Pilot as more fully described in the immediately following Paragraph II(G)).

G. Grants and Alternative Funding. The Office is tracking several grant possibilities that will cycle between April and July, with an emphasis on resources that may fund development of the Sustainability Master Plan and accompanying community tools, such as an interactive website. It is also establishing a policy of partnering with other County departments, in order to combine and optimize the County's abundant intellectual and creative capital. Current grant proposals fully-conceptualized and ready for submission:

PG&E Innovator Pilot Grant – this is a 2-year (2011-2012) grant program created to support projects that demonstrate innovation in energy financing, pilot projects, measurement, and public marketing and outreach. To meet the objectives of the grant, to integrate the County's emphasis on the connections between sustainability and public health, and to observe the County's commitment to its child population, the Office of Sustainability has developed "***Early Steps, Healthy Places***", a pilot that will install home energy retrofits in residences licensed as Family Child Care Homes. These sites represent a unique subset of residential homes, in that they undergo heightened and more sustained energy usage throughout the day (as opposed to a traditional residence where families are absent at school or work), and receive high volumes of "small people" traffic. The proposition is that many of the same conditions that render a home energy-deficient also create avenues for the introduction of harmful particulates, emissions, dust and other pollutants into homes where young children learn, live and play. Ages 1-5 are particularly vulnerable as their respiratory and pulmonary systems are undergoing critical growth and maturation. The project will record energy use measurements before and after, but also conduct air quality analysis before and after. In addition, the pilot will install up to three urban hardwood/canopy trees that will increasingly provide energy-reducing shade and improved external air quality. This latter element will be subject to the site conditions, overhead and underground utilities, and the preference of the home owner. Also, the project will result in a strategic plan for reporting results statewide and illustrating the pathway for other California communities to implement like pilots and realize similar

benefits. The initial budget calculation for the entire project is \$544,289, to address 30-35 Home Family Child Care Facilities. Partners: The County’s Department of Public Health, the California Department of Public Health’s Indoor Air Quality Program under Dr. Kazoyumi Kamugai, and Our City Forest. ***Also note***, that this is the freshman launch of the County’s grant stewardship with the municipalities, and we expect that several or all may opt in.

H. Cross-Department Collaboration. The Office has established additional working links with internal County departments, as follows:

a. *The Legislative Liaison Office*– to track, review and comment on proposed legislation that impacts issues of sustainability, in particular energy, water conservation and infrastructure, public health, and air quality; as well as continuing performance under AB 375, SB 77 (currently under amendment), AB 32 and others.

b. *Center for Leadership and Transformation* – in initial discussions on the potential for enterprise-wide Share Point sites for information sharing, and Grants Notice, Partnering and Sharing. Regarding the latter, the question is whether we (collectively) can develop an internal tool that may act as:

1. a collection venue for information on grant opportunities, populated with input from all County departments
2. an information sharing site, where the expertise of one department may assist another in a grant proposal
3. a partnering site, allowing multiple departments to develop grant/alternative funding partnerships
4. a Notice Board, allowing the entire enterprise to be aware of grant activity throughout the County.

c. *Office of Women’s Policy* – The Office of Sustainability has partnered with the Office of Women’s Policy to support the latter’s application (and, if awarded, performance) of a Second Chance Act Technology Careers Training Demonstration Projects for Incarcerated Adults and Juveniles. The grant is intended to support the creation of pathways to various technology-based careers through soft and transferable skills development, work experience and preparation for post-release employment. Together, the two offices have identified GIS and LEED EBOM as two “green” or sustainability-related technical disciplines identified as “high-growth” trades by either the Department of Labor or non-profits who analyze and project trends in the workplace. This is an opportunity that neither Office was sufficiently resourced to execute alone, but could pursue in partnership.

I. Collaboration with Working Partnerships – The Office has join efforts with Working Partnerships to explore and develop financial tools to serve the Green Pays Program. In addition, toward the mutual goal of cultivating and facilitiating consumer demand, and consequently workforce demand, the Office is cross-pollenating these efforts with the County’s Marketing Plan under the ABAG-Energy Upgrade California Program. Finally, the Office and Working Partnerships have set up a system for rapid-sharing of data, information, conference and forum materials, and sources with regard to these issues.

CONSEQUENCES OF NEGATIVE ACTION

1. Failure to recommend approval to the Board of Supervisors allowing the Office of Sustainability to submit an application, on behalf of the County, for submission into the Local Government Sustainable Energy Coalition will relinquish the benefits of joining with other governments under this group to facilitate energy policy at the state level; and
2. Failure to recommend to the Board of Supervisors approval allowing the Office of Sustainability to submit a proposal under the PG&E Innovator Pilot Grant Program will close competition to finance the "Early Steps, Healthy Places" Proposal; and
3. Failure to recommend approval to the Board of Supervisors allowing the Office of Sustainability to amend the ABAG-Energy Upgrade California Grant Program will close consideration of restructuring the program to mitigate impacts from program delays beyond the County's control.

STEPS FOLLOWING APPROVAL

1. If the FGOC recommends to the Board permission to submit an application to teh Local Government Sustainable Energy Coalition, the Office of Sustainability will work with County Counsel to complete documents for approval by the Board; and
2. If the FGOC recommends to the Board permission for the Office of Sustainability to submit the "Early Steps, Healthy Spaces" Proposal under the PG&E Innovator Pilot Program, the Office of Sustainability will provide FGOC and the Board a full proposal and detail on the grant program; and
3. If the FGOC recommends to the Board approval to amend the ABAG-EUC Program, the Office of Sustainability will return to FGOC and the Board a complete amendment proposal, including budget, schedule and projected outcomes.