



ATTACHMENT 1

Santa Barbara County
Sustainability Action Plan for County Operations
An Approach Document



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March 2009

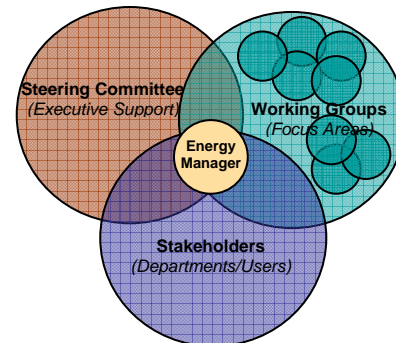
INTRODUCTION

This document amplifies and enhances the existing policy framework of December 2001, Chapter 12A of the Santa Barbara County Code, ordinance 4452.

The costs associated with how we build, use and maintain our buildings, grounds and transportation infrastructure are measured in utility dollars, operational dollars, labor dollars, and environmental impact - especially greenhouse gas (GHG) emissions. How we choose to interact with our infrastructure determines the interplay between these costs. The Sustainability Action Plan for County Operations (SAPCO) will provide a framework for developing and implementing internal policies, projects and programs for minimizing our impact on the environment, while simultaneously maintaining productivity and reducing operating costs. This Approach Document describes the contents, outlines the approach and establishes a schedule for developing the SAPCO and apprising the Board of our progress. Also attached to the Board Letter (Attachment 1) is an excerpt from another county's version of their "SAPCO". Contra Costa has already prepared a similar document to the one we envision. They call their's a *Municipal Climate Action Plan* and an excerpt is attached as an example for the Board.

1. A BROADER FRAMEWORK

The Office of Long Range Planning is currently proposing to develop a countywide Climate Action Strategy (CAS) for Santa Barbara County as part of the 2009-2010 Annual Work Program. The CAS is being developed in response to recent State climate change legislation, most notably Assembly Bill (AB) 32, Senate Bill (SB) 375, and SB 97. As a producer of greenhouse gasses and as a leader in the community the stewards of the SAPCO will work with Planning and Development in order to coordinate the achievements in County operations with P&D's responsibility to guide the effort to reduce community GHG and comply with the regulatory requirements of the Bills cited.



While the CAS is focused on developing policy to address communitywide GHG emissions in order to comply with the regulatory requirement of state and federal policy, the SAPCO will tackle issues of sustainability associated only with internal county operations – electricity, natural gas, propane, water, solid waste, and transportation fuels – in addition to grounds management, water quality and sustainable procurement.

These broader issues of sustainability encompass all of the energy and environmental issues of the past fifty years, including our current climate and energy issues. Moreover, sustainability acknowledges the need for a systematic approach to understand and address these issues. At the core is the “built environment” specifically transportation, buildings and building systems. As it relates to county operations sustainability is defined by:

- how we design, build, maintain and use county facilities and grounds
- our procurement, maintenance and use of county vehicles of all types

- the resources we consume in the course of doing county business and their contribution to global warming
- the greenhouse gas (GHG) emissions by county employee vehicles commuting to or from work

2. PLAN CONTENTS

The SAPCO, as proposed, will provide a framework for establishing a sustainability infrastructure including:

- Building energy efficiency and renewable power
- County workforce mobility
- Water efficiency
- Solid waste and recycling
- Transportation fuels
- Grounds management, water quality and sequestration
- Landfill management

Aligned with each area of sustainability is an *Advisory Committee* (see Sustainability and Conservation Team) that will develop sustainability policies, programs and projects to be included in the SAPCO. Each committee will include a core group of subject matter experts and representatives from contributing departments. Because solutions will frequently require occasional input from other areas guests members will be consulted as needed. Over the course of the next several months these committees will be formed and work in parallel to develop their action plans over the course of the year. As each functional area is developed it will be integrated into the broader plan for periodic Board review and ultimate incorporation into the existing Facility Policy Framework.

Providing accountability, transparency and maintaining verifiable on-going results is essential. Each component of the plan will address the economic and environmental costs and savings opportunity and include a method for achieving measurable results and verifying persistent savings. On an annual basis stewards of the SAPCO will report to the Board on the economic and environmental achievements during the previous year.

The Governor of California signed an Executive Order in 2006 directing all California State Agencies to begin the reduction of greenhouse gases and transform their respective agencies into sustainable (green) operations. That Executive Order further directed the regulatory agencies to begin preparing for transformation of the myriad rules, regulations and policies to effect the reduction of greenhouse gases, state-wide. Within a short period of time, the California Legislator caught-up with the Governor's vision and began enacting laws requiring the reduction of greenhouse gases—widely known as Assembly Bill (AB) 32. Other legislation followed that is targeted toward land-use, energy reduction incentives and assistance for the residential market.

With respect to the governments own operations, it has been challenging to determine just how to catalog, track and report emission inventories. The California Climate Registry was formed as a result of AB32 as a non-governmental, non-profit

agency, to collect, track and report on the greenhouse inventories of those entities now under the reporting regulation of AB32; primarily those entities that generate energy and not the consumers of that energy. In recent months those regulation have been broadened to include the consumers of energy as well. To achieve the consistent reporting of emission data, the California Climate Registry, in collaboration of the State Regulatory Agencies, has developed reporting protocols. The protocols outline the framework to be used by those under the regulatory structure of AB32 in their reporting of emissions data. While the general reporting protocols are comprehensive, it has been determined that those protocols are exceedingly difficult to apply to government sector operations.

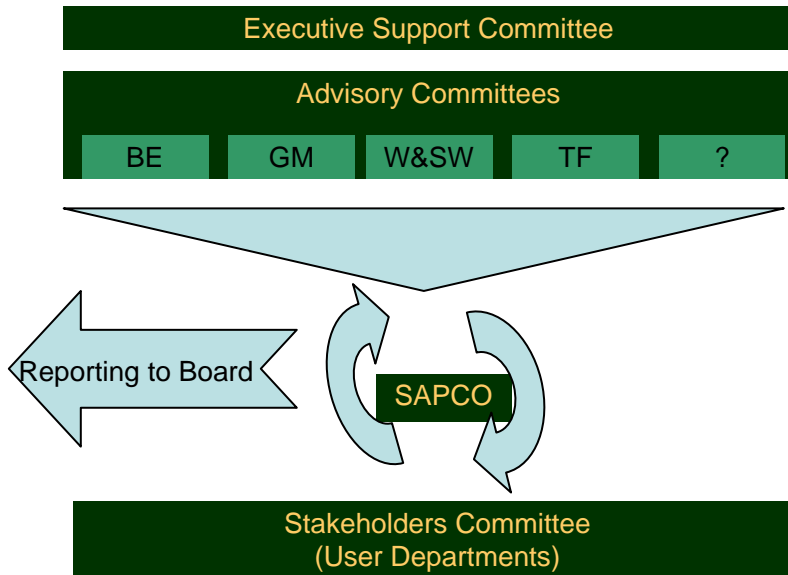
As reporting greenhouse gas inventories has broadened, it became apparent that a tailored set of protocols was required for governmental operations. For example, not all local governments have a Port, Airport or Water Distribution Operations; yet the *General Reporting Protocols* had no rational method for reporting on these or other agency anomalies. What resulted was the creation and adoption of the Local Government Reporting Protocols and for the first time local governments could collect and report on their emissions data in a consistent fashion.

Since the creation of the Local Government Reporting Protocols and the broadening of the reporting entities, the California Climate Registry has morphed into the Climate Registry—now supporting the emissions reporting of North America and parts of South America. The broader reporting area also lends itself to a large base of potential GHG credits.

The SAPCO will include a plan for reporting GHG emissions and provide a forum for regular updates. Within this section we will specifically report on GHG emissions and reductions associated with the operation of County functions within the reporting framework mentioned earlier as required by the Local Government Protocol.

3. SUSTAINABILITY AND CONSERVATION TEAM

The SAPCO will be developed and implemented with input from the Sustainability and Conservation Team (SCT). The SCT was organized following direction from the Board of Supervisors on December 16, 2008. Since Earth Day 1999 the County Green Team has implemented a variety of strategies and programs to promote environmental stewardship in county operations. The SCT will expand on that work by developing and implementing the SAPCO.



The SCT consists of three types of committees. The *Steering Committee* provides leadership, high level direction and departmental backing for the activities of the Advisory Committees. The Steering Committee is represented by executives from the following departments:

- CEO/Human Resources,
- Information Technology
- Planning and Development
- General Services.

The *Advisory Committees*, of which there is currently one, though ultimately there will be several, are responsible for developing the sections of the SAPCO relevant to their particular area of expertise. Each committee is intended to be a small, dynamic, highly functional working group that exists only so long as necessary to develop or enhance their contribution to the SAPCO.

The Building Energy (BE) Advisory Committee for example includes representatives from Human Resources, Information Technology, Planning and Development, Facilities Management, Capital Projects, the County Architect and the County Energy Manager. From time to time representatives from other departments will be consulted, such as the Office of Public Information. Members of this group were assembled because each has specific projects that will reduce building energy use and lower GHG emissions (except P&D which is involved as a liaison to ensure coordination and consistency with the overarching Countywide CAS), such as IT’s virtualization project and HR’s workforce mobility program. Furthermore, IT and HR have expertise in areas that will help GS implement their projects more effectively such as creating a

web site and list serves for communicating energy efficiency information, or creating energy awareness curriculums for Employee University.

The *Stakeholders Committee* is responsible for implementing, refining and tactically enhancing the SAPCO. The Stakeholders Committee will consist of two groups; representatives from the larger county departments, such as the Sheriff's Department, Fire Department, Public Works, the Departments of Social Services and Public Health; and departments who have the greatest ability to influence energy use, such as General Services and Information Technology.

4. BUILDING ENERGY ADVISORY COMMITTEE

The Building Energy Committee is working on internal policies, projects and programs for reducing energy use and GHG emissions in existing and new County buildings. The work will address three areas; energy efficiency, energy conservation, and renewable energy. Energy efficiency relates to the technologies, design, maintenance and control of electrical, mechanical and architectural building systems in County owned or leased facilities.

Energy efficient technology once cutting edge, has come of age over the last 20 years and has proven to not only reduce energy use but in many cases offer superior performance to its energy inefficient counterpart. Moreover, installing energy efficient equipment is extremely cost-effective with typical paybacks of five years or less. Money spent on energy-efficiency is not treated as an expense but rather an investment. By taking advantage of utility incentives and programs and by employing some of the financing techniques available, the effective-cost can further be reduced resulting in geometric gains with little seed capital. Finally, investments in energy efficiency produce savings year over year. As such, a measure with a 10 year life and a two year payback will generate five times as much in savings as was originally invested.



Consider, for example, a relatively standard lighting upgrade. Two energy efficient fluorescent lamps and electronic ballast replace a standard fluorescent lamp and magnetic ballast. The new equipment uses 60 Watts of power, versus a conventional system that consumes 96 Watts. With this technology lamps lasts longer, requiring less maintenance; light levels degrade at a slower rate, providing more light to the workers; and lamp flicker and ballast hum are eliminated. In a standard office environment the payback (considering just lighting energy savings) is less than 21 months¹. Where lights operate continuously the return on investment is less than six months. Now, that's a bright idea.



Policy recommendations will establish cost-effectiveness criteria for implementing energy efficient technology, set new construction standards for County buildings, and establish a Standard of Service and Comfort for operating our buildings. In addition, a

¹ After taking advantage of utility incentives and rebates.

list of retrofit projects for our existing building stock (see list of active/current energy projects at the end of this document) will be fleshed out to establish financial requirements for the coming year.

This Committee will also address energy conservation through a variety of programs and policies that address how building occupants and facility staff interact with our buildings. This will include workforce mobility being studied by HR; web sites and list-serves for disseminating energy information; training opportunities for employees, management and maintenance staff; and leadership campaigns to promote conservation.

Lastly this Committee will address renewable energy, considering photovoltaic installations (likely funded through power purchase agreements), cogeneration, and solar thermal hot water systems. Where the former is offered as a means of reducing GHG emissions by expanding our portfolio of renewable energy, and the later both reduces energy use and GHG emissions.

The investment needed to finance energy efficiency can be mitigated (to some degree) by collaborating with Southern California Edison (SCE), Pacific Gas and Electric (PG&E) and Southern California Gas Company (SCG) as all of these utilities offer rebates and incentives for energy efficiency. “On bill financing” offered by SCG provides zero interest, no fee loans for equipment that reduces natural gas use. The loan term is determined by the payment amount which is set by the monthly energy savings.

Creating a similar reinvestment mechanism within the County could finance multiple rounds of energy efficiency using the same investment dollars. This is especially true if we start early and initially target short payback opportunities. In future years savings generated through energy efficiency could be used to fund sustainability projects in other areas that may be less cost-effective, or used to repay the original investment. The SAPCO will include policy recommendations that address sustainability financing.

5. LEADERSHIP

With the SCT and SAPCO, Santa Barbara County will advance within the ranks of other counties that have established, or are establishing climate, energy or environmental plans such as Contra Costa, Marin, Sonoma, Sacramento, Riverside, Ventura, Los Angeles, and others. We can promote our achievement and bolster our credibility by joining one or more affiliations such as NACo *Green Government Initiative*, *Cool Counties*, *US Green Building Council*, *Architecture 2030*, *Energy Star* and others. The SAPCO will include a review of the various associations with their associated benefits and present a recommendation to the Board.

6. SCHEDULE

The next task is to form the remaining Advisory Committees and establish their charters. The target date for completing this task is April 22. In-progress reports to the Board are will occur at three month intervals until the plan has been completed.

Individual chapters will be added to the SAPCO as they are developed and presented to the Board at regular in-progress meetings. The SAPCO document is estimated to be completed by December 2009 with full implementation by 2020.

7. ACTIVE/CURRENT PROJECT

The following energy, demand and cost efficiency projects are being pursued by members of the Building Energy Advisory Committee. Though a more complete list will be developed in the coming months the following is offered now to provide an indication of the types of opportunities that are available from this Committee.

Utility Participation:

1. PG&E Energy Watch Partnership Program
2. SCE Energy Efficiency Outreach Program
3. Design Assistance program - Betteravia ITS build-out
4. PG&E HVAC tune-up program
5. PG&E Audit program - Betteravia Complex (2.8 yr ROI)
6. Utility rebates and incentives – all utilities
7. Optimize utility rate schedules & cancel dead accounts (\$35,000)

Current Projects:

8. Study workforce mobility opportunities (CEO/HR)
9. Implement sever virtualization (ITS)
10. Analyze PC power management software (ITS)
11. Implement energy accounting software (process improvement)
12. Expand energy management control system – Courthouse (6 month ROI)
13. Control motors and pumps with variable frequency drive - Courthouse (3 yr ROI)
14. Install ozone wash system - County Jail (1 yr ROI)
15. Relamp Santa Maria Sheriff Substation (6 month ROI)
16. Relamp Santa Maria Mental Health Building (2 yr ROI)
17. Relamp McDonald Building (2 yr ROI)
18. Install pool cover, variable frequency drive - New Cuyama Aquatic Center (1 yr ROI)
19. Expand energy management control system capability – Lompoc Admin. Bldg.