

County of Santa Clara Facilities And Fleet Department Capital Programs



FAF02 100504

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Building Operations

DATE: October 5, 2004

TO: Board of Supervisors

FROM: *Larry Jenkins SD*
Larry Jenkins
Director of Facilities and Fleet Department

SUBJECT: Report Back – County Energy Conservation Achievements

RECOMMENDED ACTION

Accept this informational report regarding the achievements of the County Energy Conservation Program.

FISCAL IMPLICATIONS

There is no impact to the General Fund as a result of accepting this report.

CONTRACT HISTORY

Not applicable.

REASONS FOR RECOMMENDATION

A referral was made at the August 3, 2004 Board of Supervisors meeting regarding the County's level of success in reducing its electrical energy consumption. This report provides that information and additional supplemental information.

BACKGROUND

In 2001, the State of California was faced with the worst energy crisis of recent history. On May 15, 2001, as a result of the energy crisis, the Board of Supervisors formed the Emergency Energy Task Force (EETF) committee, co-chaired by Supervisors Pete McHugh and Liz Kniss, to reduce the County's consumption of energy. The EETF committee directed the former General Services Agency (GSA) to carry out a number of very important measures designed to conserve energy usage in County facilities and to alleviate the need for rotating power outages. The EETF committee set an initial energy conservation goal of 10%, which was subsequently raised to 20% because of the continued dismal power supply projections by the State's energy providers. Successful implementation of these measures required the commitment and leadership of each and every County agency and department director, as well as concerted action and some sacrifices by every employee.

As a result of these extensive efforts, the County's consumption of electrical energy was 19.8 % lower in Fiscal Year 2004 than it was in Fiscal Year 2001. The Fiscal Year 2001 electrical consumption was 101,701,934 kWh. The Fiscal Year 2004 consumption was 81,577,581 kWh.

Attachment 1 summarizes the energy consumption for the County's four major electrical accounts for Fiscal Years 2000 through 2004. The data and graphs show that the County was able to reduce its electrical energy consumption by 20.3 % for these four major building complexes from FY 2000 to FY 2004.

Altogether, the County met its 20 % reduction goal.

GSA provided periodic progress reports to the EETF from the time the EETF was formed in 2001 until it was discontinued in 2002. GSA continued providing reports to the Finance and Government Operations Committee (FGOC) from 2002 until the present. The following is a summation of some of the information that was provided in those reports. During the past three years the County has:

1. Completed over 500 individual energy conservation projects designed to reduce the County's gross power consumption and to reduce peak power demand.
2. Installed real-time electrical power meters.
3. Initiated work on the facilities Enterprise Energy Management System.
4. Analyzed energy usage in County occupied facilities and implemented energy reduction measures.

5. Recommended County Purchasing Policies for purchasing energy efficient equipment.
6. Initiated the County's participation in PG&E's Energy Savings by Design program.
7. Analyzed and recommended alternatives for peak and gross energy demand reductions in the County.
8. Conducted energy audits of County facilities.
9. Studied the feasibility of using co-generation power plants.
10. Studied the feasibility of using alternative renewable power sources.
11. Implemented a County-wide Energy Savings Suggestion Program.
12. Subscribed to available rebate and incentive programs to help finance some of the County's energy conservation efforts.
13. Created an Energy web site for suggestions and power supply status.

Projects and Energy Conservation Measures

Since 2001, the County has completed over 500 energy conservation projects at a cost of approximately \$3.2 million (see Attachment 2). Such projects have included:

- a. Installation of 6,800 task lighting motion sensors;
- b. Installation of 1,459 room lighting motion sensors;
- c. Installation of new lighting controls systems in eight buildings;
- d. Rewiring of lighting circuits to allow for uniform lighting;
- e. Optimization of HVAC air intake economizers to take advantage of cool outside air thus reducing the need for mechanically cooled air;
- f. Installation of 116 HVAC system time clocks and programmable thermostats;
- g. Replacement of 139 incandescent exit signs with energy efficient LED (light emitting diode) exit signs;
- h. Installation of reflective film on windows;
- i. Installation of 23 cool roof systems;
- j. Installation of boiler controls for more efficient gas usage on boiler systems;
- k. Installation of attic fans;

- l. Installation of automatic tube brush cleaning systems for chillers;
- m. Installation of 69 power meters;
- n. Replacement of two water pumping stations; and
- o. Retrofit of 716 lighting fixtures with energy efficient fluorescent lamps.

Installation of Real-Time Electrical Power Meters

On June 25, 2002, the Board of Supervisors approved the Power Meter Installation Project by awarding the contract to Control Manufacturing Company (CMC). This project was approved as Phase One of a two-phase program, and was done to measure consumption at specific buildings and to evaluate the quality and consistency of power being provided by PG&E. Prior to the installation of these power meters, the County did not have a means to readily track energy demand and could only rely upon data being provided by PG&E and other local utility providers. This project consisted of installing 69 power meters, and was completed in December 2002. Attachment 3 provides a listing of sites where power meters were installed.

Enterprise Energy Management System

Phase Two of the effort describe above is the installation of the Enterprise Energy Management System (EEMS). The EEMS is the overall system that will give the County the ability to properly manage and control its electrical utilities, and the potential to participate in load shedding energy rebate incentive programs. This system will enable the County to control building power usage from the Building Operations MAC Room. The Board approved the funding for this project at the August 3, 2004 Board Meeting. An RFP is being prepared.

Energy Usage in County Occupied Facilities

On June 8, 2001, the EETF requested GSA to establish and manage the County Energy Conservation Program, which consists of managing energy conservation projects and work orders, and identifying other potential means to reduce the County's energy consumption.

In addition to completing many energy conservation projects, GSA also analyzed building occupancy and employee work schedules, and provided recommendations on possible alternatives that would lead to lower energy consumption in some County buildings. GSA's analysis concluded with the recommendation to the EETF that the building utility operating schedules be modified as opposed to other alternatives such as changing work schedules for employees or closing buildings. This recommendation focused on operating building electrical systems at full capacity only during actual working hours. This alternative proved to be the least disruptive to County workloads and mandated services while being effective in terms of energy savings. For example – 2,473 kWh were saved per day by changing the 70 W Hedding East Wing building systems operating hours from the former operating hours of 5 am to 2 am to new operating hours of 6 am to 9 pm.

Procurement Policies

GSA Procurement Department, with Board approval, developed and implemented new purchasing energy conservation friendly policies. Such policy recommendations included the requirement that all electrical/electronic devices purchased

must be Energy Star rated.

Capital Programs Savings by Design

PG&E manages a "Savings by Design" program by which utility users may receive financial rebates by designing buildings that achieve energy conservation goals that are greater than those required by California Title 24 standards. The Capital Programs Division is participating in this program for each of the Bond funded programs. The Valley Specialty Center is the first facility to receive recognition under the "Savings by Design" program. That facility has been designed to achieve energy consumption that is 18 % lower than the Title 24 requirements. This will save the County an estimated \$254,000 in annual energy costs and makes the County eligible to receive a \$150,000 PG&E rebate when the project is completed.

Gross and Peak Load Reductions

GSA investigated and reported on various alternatives to reduce the County's peak and gross electrical consumption and provided recommendations for each. Gross energy consumption reductions were identified as permanent reductions which typically involved permanent alterations to the building systems. Peak energy consumption reductions involved temporary changes designed to alleviate load demand during high consumption/low power supply periods (i.e., Stages 2 and 3). Some of the efforts undertaken to reduce gross energy demand were described earlier in this report. Another important example would be the changing of temperature set-points in many buildings to 78 degrees for cooling and 68 degrees for heating for the peak period summer months and 70 degrees for heating and 76 degrees for cooling in the peak winter months. Since 2002, the temperature set points were changed to remain at 70/76 throughout the year instead of changing them seasonally.

Peak load reductions included alternatives such as reducing lighting levels where practical and operating emergency power generators as a means of load shedding to alleviate the power grid during high demand/low power supply conditions. This last alternative (use of emergency power generators) was discontinued upon learning of the air pollution restrictions imposed by the Bay Area Air Quality Management District (BAAQMD). Because this was a very efficient and direct way to reduce load, GSA investigated filter alternatives for its emergency generators so that these could be operated when needed and still comply with the BAAQMD strict air quality guidelines. The generator filter alternative proved to be too costly to implement.

Energy Audits

In efforts to compile a comprehensive list of energy conservation measures, the EETF recommended that GSA perform comprehensive facility energy audits. GSA issued a RFP to prospective bidders and eventually secured the services of Chevron Energy Solutions (Chevron) at a cost of \$355,316. Chevron performed energy audits on approximately 145 County owned buildings covering over 3.6 million square feet (see Attachment 4). Chevron's energy audits yielded a number of Energy Conservation Measures (ECM) projects that were recommended for further evaluation. Examples of such projects included lighting retrofits, HVAC system modifications, installation of co-generation plants, and water conservation measures. GSA evaluated the proposed projects against the financial criteria of available rebates, grants, and payback periods. The County has completed five of these projects at a cost of \$756,295 (see Attachment 5). One project remains to be completed. This is the Berger 2 Chiller project approved by the Board on August 3, 2004 at a value of \$278,200. This last project will bring the total investment in Chevron recommended projects to \$1,034,495.

Co-Generation Power Plants

The consulting firm of Kuhn and Kuhn was hired to provide an analysis of the Chevron recommended project for installation of co-generation plants at the Main Jail North and Elmwood facilities. Co-generation was recommended for evaluation because the 24/7 operation of these two correctional facilities provided a constant load and had a higher potential for producing positive savings as a result. Unfortunately, the Kuhn and Kuhn analysis showed these projects were not economically viable projects and produced no immediate or mid-range savings. The project financing, operating and maintenance costs were higher than the savings achieved.

Alternative Renewable Energy Resources

Being sensitive to the effects that power generation plants produce on the environment, and the potential for minimal recurring investments to acquire power generation means, the EETF committee requested that GSA research alternative renewable energy resources and study the possibility of installing such systems in County owned facilities. Reports on the various alternative energy resources, such as solar, wind, geothermal, biomass, and fuel cells were generated by Kuhn and Kuhn and were presented to the FGOC in 2002.

Countywide Energy Savings Suggestion Program

In efforts to involve all County employees, the EETF Committee implemented the County-wide Energy Savings Suggestion Program. This program proved very successful, particularly during the early to mid stages of the energy conservation efforts. This program yielded in excess of 300 energy conservation suggestions during this time period.

Rebate Updates

According to PG&E records, the County had received over \$1.7 million in rebates from 1990 to 1999. The magnitude of these rebates show that the County was heavily involved in energy conservation projects prior to the 2001 energy crisis.

Since the 2001 energy crisis, the County has received a total of \$391,758 in energy and water conservation related rebates (see Attachment 6). These rebates have been generated as a result of subscriptions made by the County to the different incentive programs offered by entities such as PG&E, California Energy Commission, and other program sponsors such as the City of San Jose (for water conservation). Thus far in FY05, the County has received \$36,108, and is expecting an additional \$50,000 before the end of the fiscal year. Including the anticipated rebate of \$50,000, the County's total for energy and water conservation related rebates will be \$441,758 before the end of the current fiscal year. The County will be receiving a \$150,000 rebate under the PG&E Savings by Design program when the Valley Specialty Center is completed in FY 07.

Current Energy Conservation Projects

The FAF Building Operations Division has programmed two energy conservation projects for FY05: 1) the HVAC related project for Building 2 at Berger Drive, and 2) installation of the EEMS.

The HVAC project programmed for Berger 2 involves adding a small chiller to support the main computer room during off hours. Currently this room is supported by a much larger chiller system that also supports other parts of the facility, even when not needed. The installation of this smaller chiller will provide sufficient cooling for the computer room and will operate at a much lower electrical cost. This measure is expected to generate about \$29K in annual energy savings and \$50,000 in one-time energy rebates.

The installation of the EEMS is phase two of the two-phase EEMS project described earlier in the report. The first phase consisted of installing 69 additional real-time electrical power meters; this second phase involves installing the EEMS system and linking all the power meters installed during phase one to existing computerized building control systems (e.g., GE TLC Lighting controls, Andover, Johnson Controls, etc.) to provide true energy management capabilities. The total project cost to implement this system will be \$313,000; these are Fund 50 funds that have already been allocated and approved by the Board of Supervisors.

FAF Capital Programs Division is continuing to pursue efforts under the PG&E Savings by Design program for the Bond funded projects. The Crime Laboratory is currently being studied for means to exceed the energy conservation goals of California Title 24 and eligibility for the PG&E Savings by Design program.

CONSEQUENCES OF NEGATIVE ACTION

If this report is not accepted, the Board will not have the most recent information regarding the County's success in reducing its electrical energy consumption.

STEPS FOLLOWING APPROVAL

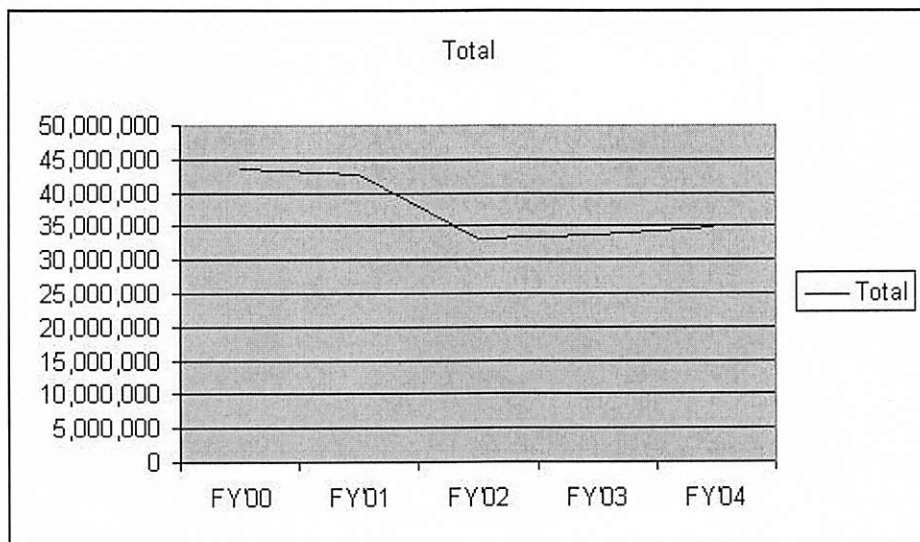
The Clerk of the Board of Supervisors will forward one conformed copy of this transmittal to the Facilities and Fleet Department, Intergovernmental Services Division, 2310 North First Street San Jose , CA.

ATTACHMENTS

- (Transmittal submitted on Sep 23, 2004 12:00:06 PM – PDF Version)
- Attachment 1 –Energy Savings Summary (Miscellaneous)
- Attachment 2 –Energy Conservation Projects Matrix (Miscellaneous)
- Attachment 3 –Power Meter Installations (Miscellaneous)
- Attachment 4 –Chevron Audited Facilities (Miscellaneous)
- Attachment 5 –CES Energy Conservation Measures (Miscellaneous)
- Attachment 6 –Rebates to Date (Miscellaneous)

Attachment 1
Energy Savings Summary
(Savings reflected compare FY00 to FY04)

FY	Berger Dr.	180 Hedding	171 Hedding	55 Younger	Total	% Savings
FY'00	10,848,270	18,788,055	526,960	13,453,336	43,616,621	
FY'01	10,326,170	15,016,800	769,440	16,523,057	42,635,467	
FY'02	8,410,455	13,447,200	604,320	10,684,788	33,146,763	
FY'03	8,542,944	13,485,600	641,920	11,150,310	33,820,774	
FY'04	8,977,768	13,588,800	591,280	11,590,996	34,748,844	
Energy Reduction Comparison between FY00 and FY04:						-20.33%



The data above includes the following buildings:

Berger Dr.	180 Hedding	171 Hedding	55 Younger
Berger 1	Main Jail North	Parking Garage	Sheriffs Office
Berger 2	Main Jail South		West Wing
Berger 3	HOJ East & West		East Wing
Roads & Airports	Juvenile Hall Complex		Fleet Garage
			Fleet Office

Attachment 6

(Rebates To Date)

Year/ Payment From	Amount	GL Acct	Cost Center	Date	Log #
FY 05					
CHEVRONTEXACO (Energy Rebate)	36,108.78	4723550	2516	8/13/04	002463
YTD Rebates FY05	\$36,108.78				
FY 04					
CHEVRONTEXACO	\$14,172.40	4723550	2516	06/22/04	020289
CITY OF SAN JOSE	\$50,000.00	4723550	2516	06/22/04	020289
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	07/29/03	001579
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	08/26/03	003195
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	10/16/03	006117
PRINCETON DEVELOPMENT	\$153.00	4723550	2516	12/03/03	008698
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	12/30/03	010140
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	01/13/04	010866
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2500	02/27/04	013439
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	03/26/04	015146
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	04/20/04	016521
PRINCETON DEVELOPMENT	\$3,153.00	4723550	2516	06/08/04	019479
Total Rebates FY04	\$92,702.40				
FY 01 - FY03 (Previously Reported)					
PG&E Ck#8632765	\$156.75	9771	2515	01/02/00	4913
PG&E 976 Lenzen Ck#8366782	\$4,500.00	9771	2515	07/24/01	1450
PG&E 976 Lenzen Ck#188017	\$1,080.00	9771	2515	07/24/01	1451
PG&E 850 Thornton Ck#8366783	\$780.00	9771	2515	07/24/01	1450
PG&E 701 Abel Ck#8366802	\$2,310.00	9771	2515	07/24/01	1450
PG&E 614 Tully Ck#8366793	\$1,200.00	9771	2515	07/24/01	1449
PG&E 590 East Middlefield Ck#8366784	\$90.00	9771	2515	07/24/01	1449
PG&E 55 West Younger Ck#8366794	\$15,270.00	9771	2515	07/24/01	1449
PG&E 55 West Younger Ck#8366797	\$13,350.00	9771	2515	07/24/01	1449
PG&E 55 West Younger Ck#8366801	\$13,230.00	9771	2515	07/24/01	1449
PG&E 55 West Younger Ck#8366779	\$19,500.00	9771	2515	07/24/01	1451
PG&E 55 West Younger Ck#8354985	\$4,503.00	9771	2515	07/24/01	1451
PG&E 55 West Younger Ck#8355095	\$715.00	9771	2515	07/24/01	1451
PG&E 4525 Union #10A Ck#8366787	\$5,593.50	9771	2515	07/24/01	1447
PG&E 4525 Union #10A Ck#8366781	\$2,640.00	9771	2515	07/24/01	1450
PG&E 298 Garden Hill Ck#8366780	\$2,400.00	9771	2515	07/24/01	1449
PG&E 2700 Carol Ck#8366789	\$1,800.00	9771	2515	07/24/01	1450
PG&E 2645 Zanker Ck#8366796	\$8,370.00	9771	2515	07/24/01	1447
PG&E 2610 N. 1st St #201 Ck#8366796	\$7,650.00	9771	2515	07/24/01	1447
PG&E 1989 McKee Ck#8366791	\$1,050.00	9771	2515	07/24/01	1450
PG&E 180 West Hedding Ck#8366785	\$2,029.50	9771	2515	07/24/01	1447
PG&E 180 West Hedding Ck#8366799	\$5,550.00	9771	2515	07/24/01	1448
PG&E 180 West Hedding Ck#8366778	\$9,000.00	9771	2515	07/24/01	1451
PG&E 1735 N. 1st St. Ck#8366798	\$4,650.00	9771	2515	07/24/01	1448
PG&E 1725 Technology Ck#8366790	\$24,000.00	9771	2515	07/24/01	1448
PG&E 1555 Berger Drive Ck#8366795	\$99.00	9771	2515	07/24/01	1447

PG&E 1555 Berger Drive Ck#8366803	\$13,950.00	9771	2515	07/24/01	1448
PG&E 1555 Berger Drive Ck#8366800	\$3,420.00	9771	2515	07/24/01	1448
PG&E 1555 Berger Drive Ck#8366792	\$2,280.00	9771	2515	07/24/01	1448
PG&E 1555 Berger Drive Ck#8366786	\$1,500.00	9771	2515	07/24/01	1451
PG&E 217 Devcon Ck#8384912	\$6,000.00	9771	2515	08/10/01	2714
PG&E 95 W. Younger Ck#8410236	\$510.00	9771	2515	08/29/01	4105
PG&E 701 Abel Ck#8407279	\$252.00	9771	2515	08/29/01	4104
PG&E 660 S. Fair Oaks Ck#8410242	\$1,353.00	9771	2515	08/29/01	4105
PG&E 660 S. Fair Oaks Ck#8410240	\$874.50	9771	2515	08/29/01	4105
PG&E 590 East Middlefield Ck#8407282	\$72.00	9771	2515	08/29/01	4104
PG&E 55 West Younger Ck#8410229	\$478.50	9771	2515	08/29/01	4103
PG&E 55 West Younger Ck#8410228	\$3,915.00	9771	2515	08/29/01	4104
PG&E 55 West Younger Ck#8407283	\$97.88	9771	2515	08/29/01	4104
PG&E 298 Bernal Rd Ck#8407280	\$48.00	9771	2515	08/29/01	4104
PG&E 1989 McKee Ck#8410241	\$742.50	9771	2515	08/29/01	4105
PG&E 19050 Malaguerra Ave Ck#8407281	\$24.00	9771	2515	08/29/01	4104
PG&E 180 West Hedding Ck#8410230	\$1,183.87	9771	2515	08/29/01	4105
PG&E 180 West Hedding Ck#8410239	\$457.88	9771	2515	08/29/01	4105
PG&E 298 Garden Hill Ck#8431380	\$24.00	9771	2515	09/05/01	4472
PG&E 180 West Hedding Ck#8431381	\$144.00	9771	2515	09/05/01	4473
PG&E Ck#8407278	\$156.00	9771	2515	09/05/01	4472
PG&E 850 Thornton Ck#8437841	\$96.00	9771	2515	09/06/01	4560
PG&E 80 Highland Ave Ck#8438934	\$1,890.00	9771	2515	09/06/01	4559
PG&E 55 West Younger Ck#8438933	\$1,138.50	9771	2515	09/06/01	4560
PG&E 298 Bernal Rd Ck#8438938	\$1,386.00	9771	2515	09/06/01	4559
PG&E 2700 Carol Ck#8438940	\$82.50	9771	2515	09/06/01	4559
PG&E 1989 McKee Ck#8438936	\$2,277.00	9771	2515	09/06/01	4560
PG&E 19050 Malaguerra Ave Ck#8438937	\$825.00	9771	2515	09/06/01	4559
PG&E 190 Leavesley Rd #1 Ck#8438941	\$600.00	9771	2515	09/06/01	4560
PG&E 180 West Hedding Ck#8438942	\$5,062.50	9771	2515	09/06/01	4559
PG&E 180 West Hedding Ck#8438939	\$1,237.50	9771	2515	09/06/01	4560
PG&E 1650 Los Plumas #A Ck#8438943	\$210.00	9771	2515	09/06/01	4559
PG&E 1110 L Avenida Ave Ck#8438935	\$2,280.00	9771	2515	09/06/01	4560
City of Palo Alto - Inv.Ref.#108 Ck#640762	\$140.00	9771	2515	09/17/01	5266
PG&E - 245 Park Avenue Ck#8460040	\$2,550.00	9771	2515	09/20/01	5527
PG&E Ck#8460038	\$4,890.00	9771	2515	09/20/01	5527
PG&E Ck#8460039	\$11,340.00	9771	2515	09/20/01	5527
PG&E Ck#8460037	\$2,970.00	9771	2515	09/20/01	5527
PG&E Ck#8460036	\$2,880.00	9771	2515	09/20/01	5527
PG&E - 614 Tully Rd Ck#8470130	\$3,069.00	9771	2515	10/01/01	6272
PG&E - 450 Montague Expwy. Ck# 8470131	\$3,600.00	9771	2515	10/01/01	6272
PG&E - Metcalf Rd. Ck#8484948	\$72.00	9771	2515	10/12/01	7137
PG&E - 614 Tully Rd Ck#8484947	\$1,023.00	9771	2515	10/12/01	7137
City of Santa Clara Rebate Ck274821 10/01	\$2,130.00	9771	2515	10/12/01	7137
PG&E Ck#8524475	\$1,410.00	9771	2515	11/07/01	8950
PG&E Ck#8534351	\$2,100.00	9771	2515	11/14/01	9346
PG&E Ck#8534352	\$1,530.00	9771	2515	11/14/01	9346
PG&E Ck#8534353	\$360.00	9771	2515	11/14/01	9346
Energy Rebate GSA Ck#647345	\$200.00	9771	2515	12/18/01	1743
Energy Rebate GSA Ck#647548	\$1,390.00	9771	2515	12/21/01	2053

Energy Rebate GSA Ck#278779	\$135.00	9771	2515	12/28/01	2462
PG&E Energy Rebate-GSA Ck#8612859	\$1,230.00	9771	2515	01/15/02	3566
PG&E Energy Rebate-GSA Ck#8612858	\$360.00	9771	2515	01/15/02	3566
PG&E Energy Rebate-GSA Ck#8612857	\$1,530.00	9771	2515	01/15/02	3566
PG&E Energy Rebate-GSA Ck#8612856	\$1,683.00	9771	2515	01/15/02	3567
PG&E Energy Rebate-GSA Ck#8612855	\$742.50	9771	2515	01/15/02	3567
PG&E Energy Rebate-GSA Ck#8612854	\$1,435.50	9771	2515	01/15/02	3567
PG&E Energy Rebate-GSA Ck#8612853	\$900.00	9771	2515	01/15/02	3567
PG&E Energy Rebate-GSA Ck#8612852	\$570.00	9771	2515	01/15/02	3567
PG&E Ck#8632766	\$165.00	9771	2515	02/04/02	4913
PG&E Ck#8632767	\$709.50	9771	2515	02/04/02	4913
PG&E Ck#8632768	\$346.50	9771	2515	02/04/02	4913
PG&E Ck#8632769	\$313.50	9771	2515	02/04/02	4913
PG&E Ck#8632770	\$189.75	9771	2515	02/04/02	4914
PG&E Ck#8632771	\$561.00	9771	2515	02/04/02	4914
PG&E 150 LEAVESLEY RD CK#9252752	\$360.00	9771	2515	04/17/03	020131
PG&E 1215 IST ST CK#9252754	\$1,217.00	9771	2515	04/17/03	020131
PG&E 190 LEAVSLEY RD CK#9252753	\$1,837.50	9771	2515	04/17/03	020131
PG&E LANDING METCALF PROJ CK#9245663	\$923.50	9771	2515	04/17/03	020131
Total Rebates FY01 to FY03	\$262,948.13				

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
460224	CLOSE	ROOFING PROJECTS - Elmwood	ELMWD REHAB	\$450,000	\$4,337	\$479,564	\$483,901	\$74,760	\$17,292	\$575,954
460226	CLOSE	RE-ROOF - MARIPOSA LODGE	ALCOHOL	\$60,000	\$173	\$127,886	\$128,060	\$6,263	\$17,452	\$151,775
460231	CLOSE	REPLACE ROOF - SSA	SSA CHILD	\$40,000	\$925	\$14,650	\$15,576	\$25,000		\$40,576
465831	CANCL	REPLACE WRIGHT RANCH PUMP	SANTA TERESA	\$40,000	\$128	\$85	\$214			\$214
485091	CLOSE	Energy Curtailment Projects - Various	COUNTY SERVICE	\$85,000	\$38,812	\$34,148	\$72,961		\$15,953	\$88,914
496975	CLOSE	Add Diverter Valve to boilers - East	CCOB-EAST WING	\$7,000	\$772	\$686	\$1,458	\$5,500		\$6,958
496978	CLOSE	Install New Boiler Controls - Building	COUNTY SERVICE	\$20,000	\$2,188	\$1,373	\$3,561	\$19,591		\$23,152
496981	CLOSE	Set or Install time	ALCOHOL	\$2,500	\$1,544	\$942	\$2,487		\$1,209	\$3,696
496982	CLOSE	Set or Install time	ELMWD REHAB	\$5,000	\$2,107	\$4,967	\$7,075		\$1,630	\$8,705
496983	CLOSE	Set or Install time	ELMWD REHAB	\$600		\$686	\$686			\$686
496984	CLOSE	Set or Install time	PROBATION-MURIE	\$5,000	\$2,574	\$85	\$2,660		\$4,995	\$7,655
496985	CLOSE	Set or Install time	JAMES	\$300	\$257		\$257			\$257
496986	CLOSE	Set or Install time	HOLDEN				\$0			\$0
496987	CLOSE	Set or Install time	JUVENILE	\$5,000	\$514	\$1,845	\$2,360		\$1,640	\$4,000
496988	CLOSE	Set or Install time	PROBATION-WORK	\$1,500	\$1,351	\$214	\$1,566			\$1,566
496989	CLOSE	Adjust Economizers for Maximum	SANTA	\$1,000		\$1,058	\$1,058			\$1,058
496990	CLOSE	Replace vanity lights with fluorescents	SUNNYVALE			\$391	\$391		\$630	\$1,022
496991	CLOSE	Adjust Economizers for Maximum	SOUTH COUNTY	\$100		\$102	\$102			\$102
496993	CLOSE	Adjust Economizers for Maximum	SOUTH COUNTY	\$5,000			\$0			\$0
496994	CLOSE	Adjust Economizers for Maximum	SOUTH COUNTY				\$0			\$0
496995	CLOSE	Adjust Economizers for Maximum	SOUTH COUNTY				\$0			\$0
496996	CLOSE	Adjust Economizers for Maximum	JAMES				\$0			\$0
496997	CLOSE	Adjust Economizers for Maximum	HOLDEN				\$0			\$0
496999	CLOSE	Adjust Economizers for Maximum	PROBATION-MURIE				\$0			\$0
497000	CLOSE	Adjust Economizers for Maximum	NORTH COUNTY	\$600		\$643	\$643			\$643
497001	CLOSE	Adjust Economizers for Maximum	VASONA				\$0			\$0
497002	CLOSE	Adjust Economizers for Maximum	GSA	\$5,000			\$0			\$0
497003	CLOSE	Adjust Economizers for Maximum	PARK ALAMEDA	\$5,000	\$4,361	\$3,921	\$8,283		\$61,548	\$69,832
497004	CLOSE	Adjust Economizers for Maximum	FAIR OAKS MENTAL	\$250		\$214	\$214			\$214
497005	CLOSE	Adjust Economizers for Maximum	Chaboya VHC	\$700		\$686	\$686			\$686
497011	CLOSE	Adjust Economizers for Maximum	SOUTH COUNTY				\$0			\$0
497013	CLOSE	Adjust Economizers for Maximum	PROBATION-WORK	\$1,000	\$948	\$600	\$1,549		\$34	\$1,583

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
497014	CLOSE	Adjust Economizers for Maximum	ELMWD REHAB	\$3,000	\$2,325	\$1,201	\$3,527			\$3,527
497015	CLOSE	Adjust Economizers for Maximum	ELMWD REHAB	\$600		\$686	\$686			\$686
497016	CLOSE	Adjust Economizers for Maximum	NORTH COUNTY	\$200		\$171	\$171			\$171
497035	CLOSE	Install Motion Sensors in Conference	CCOB-EAST WING	\$20,000	\$2,310	\$21,537	\$23,847		\$7,514	\$31,362
497036	CLOSE	Install Low Voltage Switches by	CCOB-EAST WING	\$17,500	\$1,472	\$15,286	\$16,758	\$177	\$3,141	\$20,076
497037	CLOSE	Install Low Voltage Switches by	CCOB-EAST WING	\$5,000	\$2,096	\$5,951	\$8,048		\$15	\$8,063
497038	CLOSE	Install Motion Sensors in Conference	COUNTY SERVICE	\$45,000	\$7,649	\$50,472	\$58,122	\$2,392	\$91,706	\$152,220
497039	CLOSE	Install Motion Sensors in Conference	HALL OF	\$45,000	\$3,748	\$36,620	\$40,368		\$11,661	\$52,030
497040	CLOSE	Install Motion Sensors in Conference	SHERIFF	\$15,000		\$14,006	\$14,006		\$6,493	\$20,500
497041	CLOSE	Replace all Incandescent Type Exit	CCOB-EAST WING	\$1,500	\$705	\$673	\$1,379		\$2,291	\$3,670
497042	CLOSE	Replace all Incandescent Type Exit	CCOB-WEST WING	\$7,000	\$1,175	\$6,473	\$7,649		\$6,325	\$13,975
497043	CLOSE	Replace all Incandescent Type Exit	HALL OF	\$500		\$78	\$78		\$230	\$308
497044	CLOSE	Replace all Incandescent Type Exit	JUVENILE				\$0			\$0
497045	CLOSE	Replace all Incandescent Type Exit	SHERIFF				\$0			\$0
497046	CLOSE	Replace all Incandescent Type Exit	COUNTY SERVICE				\$0			\$0
497047	CLOSE	Replace all Incandescent Type Exit	COUNTY SERVICE	\$5,000		\$4,460	\$4,460			\$4,460
497049	CLOSE	Replace all Incandescent Type Exit	COUNTY SERVICE				\$0			\$0
497050	CLOSE	Install Task Lighting Motion Sensor	CCOB-EAST WING	\$18,000	\$634	\$18,223	\$18,857		\$114,245	\$133,103
497051	CLOSE	Install Task Lighting Motion Sensor	CCOB-WEST WING	\$12,000	\$4,137	\$8,136	\$12,274		\$3,000	\$15,274
497053	CLOSE	Install Task Lighting Motion Sensor	HALL OF	\$500		\$405	\$405			\$405
497054	CLOSE	Install Task Lighting Motion Sensor	JUVENILE	\$5,000	\$643	\$7,131	\$7,774		\$3,805	\$11,580
497055	CLOSE	Install Task Lighting Motion Sensor	SHERIFF	\$1,500		\$1,431	\$1,431			\$1,431
497056	CLOSE	Install Task Lighting Motion Sensor	COUNTY SERVICE	\$2,000		\$1,896	\$1,896		\$196	\$2,092
497057	CLOSE	Install Task Lighting Motion Sensor	COUNTY SERVICE	\$4,000	\$862	\$2,850	\$3,712			\$3,712
497058	CLOSE	Install Task Lighting Motion Sensor	COUNTY SERVICE	\$5,000	\$443	\$24,073	\$24,516		\$912	\$25,429
497732	CLOSE	Replace interior light with Energy	JUVENILE	\$2,000		\$1,489	\$1,489		\$4,969	\$6,459
498238	CLOSE	Install Energy Saving Components -	MAIN JAIL NORTH -	\$10,000	\$128	\$26,307	\$26,435		\$3,111	\$29,547
498518	CLOSE	Contract to Support Energy Projects -	COUNTY SERVICE	\$500		\$304	\$304		\$1,230	\$1,534
500625	CLOSE	Install Motion Sensors and Locking	MEDICAL	\$3,000	\$1,158	\$1,673	\$2,832		\$261	\$3,093
500920	CLOSE	Install Timer for Exterior Lights -	DOWNTOWN	\$1,000		\$1,029	\$1,029		\$62	\$1,092
501217	CLOSE	Install Elevator Signs in support of the	CCOB-EAST WING	\$5,000	\$2,915	\$1,445	\$4,360			\$4,360
501281	CLOSE	Install Tint on Elevator Windows -	CCOB-EAST WING	\$1,800		\$1,278	\$1,278	\$500		\$1,778

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WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
501314	CLOSE	Perform Meter Expansion Survey -	COUNTY SERVICE	\$10,000	\$128	\$2,675	\$2,804	\$8,350		\$11,154
504047	CLOSE	Install Motion Sensors and Attic Fans	CHILD SHELTER	\$20,000	\$6,587	\$13,879	\$20,467	\$9,600	\$1,342	\$31,410
504395	CLOSE	Install Task Lighting - SSA -	SOCIAL SERVICES	\$10,000	\$15,953	\$9,046	\$24,999	\$50,792	\$45,684	\$121,475
505096	CLOSE	Review Feasibility Studies for Energy	COUNTY SERVICE				\$0			\$0
505171	CLOSE	install motion sensor lights in the three GSA		\$500	\$128	\$386	\$514		\$59	\$574
507082	CLOSE	INSTALL MOTION SENSOR WALL	FAIR OAKS VHC	\$700		\$660	\$660		\$2,608	\$3,269
507084	CLOSE	INSTALL MOTION SENSOR WALL	EAST VALLEY	\$3,000		\$6,965	\$6,965		\$654	\$7,620
507085	CLOSE	INSTALL MOTION SENSOR WALL	EAST VHC (PH)	\$6,500		\$6,830	\$6,830			\$6,830
507087	CLOSE	INSTALL MOTION SENSOR WALL **DEMOLISHED**V		\$18,000	\$386	\$19,011	\$19,397		\$377	\$19,774
507088	CLOSE	INSTALL MOTION SENSOR WALL	FAIR OAKS MENTAL	\$3,000		\$2,758	\$2,758			\$2,758
507768	CLOSE	Cut down on Interior Lighting -	COUNTY SERVICE	\$5,000			\$0			\$0
507771	CLOSE	Cut down on Interior Lighting -	ELMWD-REHAB	\$5,000			\$0		\$8,115	\$8,115
507824	CLOSE	REDUCE LIGHTING IN BUTLER	VMC-HEALTH				\$0			\$0
507825	CLOSE	CUT BACK LIGHTING IN FOOD	ELMWD-REHAB	\$200		\$171	\$171			\$171
507827	CLOSE	MINIMIZE LIGHTING IN	COUNTY SERVICE	\$2,000		\$2,128	\$2,128			\$2,128
508406	CLOSE	Provide a survey to determine ways to	STARLIGHT				\$0			\$0
508518	CLOSE	INVENTORY SETBACK	TRAFFIC COURT	\$5,000			\$0			\$0
508568	CLOSE	Replace old thermostat with new	SOCIAL	\$200		\$85	\$85		\$100	\$185
508599	CLOSE	REPLACE T - 12 LAMPS WITH T -	ALCOHOL	\$800		\$11,359	\$11,359		\$393	\$11,753
508926	CLOSE	Support Andover Energy Upgrades -	CCOB-EAST WING	\$50,000	\$8,624	\$19,223	\$27,848	\$11,306		\$39,154
509219	CLOSE	PROVIDE / INSTALL	DOWNTOWN	\$5,000		\$257	\$257			\$257
509247	CLOSE	Change all mecury thermostats to	VASONA	\$1,000		\$815	\$815		\$243	\$1,058
509513	CLOSE	Install Emergency Generator to	SUNNYVALE	\$70,000		\$772	\$772			\$772
510265	CLOSE	Inventory T-stats - Parks	ALMADEN	\$1,000		\$772	\$772		\$395	\$1,167
510698	CANCL	INSTALL OVERRIDE FOR BLDG.	CCOB-EAST WING				\$0			\$0
510699	CANCL	INSTALL OVERRIDE FOR	COUNTY SERVICE	\$50,000			\$0			\$0
510701	CLOSE	INSTALL MOTION SENSORS. SEE	Chaboya VHC	\$5,000		\$12,778	\$12,778		\$239	\$13,018
510704	CLOSE	INSTALL MOTION SENSORS. SEE	PROBATION-MURIE	\$5,000		\$6,642	\$6,642			\$6,642
510707	CLOSE	INSTALL MOTION SENSORS - SEE	JAMES	\$5,000		\$4,261	\$4,261		\$54	\$4,316
510708	CLOSE	INSTALL MOTION SENSORS - SEE	HOLDEN	\$7,500	\$196	\$7,809	\$8,005			\$8,005
511000	CANCL	INSTALL OVERRIDES FOR HVAC	COUNTY SERVICE	\$1,500	\$514	\$686	\$1,201			\$1,201
511003	CANCL	INSTALL OVERRIDES FOR HVAC	COUNTY SERVICE				\$0			\$0

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT I- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
512004	CLOSE	investigate and correct parking lot	Superior Court Admin	\$5,000		\$335	\$335			\$335
512005	CANCL	INVESTIGATE AND CORRECT	DOWNTOWN	\$5,000			\$0			\$0
512006	CANCL	INVESTIGATE AND CORRECT	OLD COURT HOUSE	\$1,000			\$0			\$0
512161	CLOSE	INVESTIGATE EMS SYSTEM TO	PARK ALAMEDA	\$5,000	\$450	\$2,660	\$3,110		\$215	\$3,326
512163	CLOSE	SET THE SOUTH COUNTY	JAMES	\$1,500		\$1,373	\$1,373			\$1,373
512165	CLOSE	SET BARBER COLMAN EMS	MAIN JAIL NORTH -	\$1,000		\$858	\$858			\$858
512756	CANCL	WALK THRU WITH MELANIE TO	DOWNTOWN	\$5,000			\$0			\$0
513043	CLOSE	RECONFIGURE A/C CONTROLS	ELMWD REHAB	\$5,000		\$643	\$643		\$410	\$1,054
513152	CLOSE	INSTALL WALL MOTION	SOUTH COUNTY	\$5,000		\$12,043	\$12,043		\$277	\$12,321
513213	CLOSE	REPAIR/REPLACE ROOF AT EAST	EAST VHC (PH)			\$2,208	\$2,208		\$13,950	\$16,158
513218	CLOSE	REPAIR/REPLACE ROOF AT	San Martin VHC (clin	\$108,000		\$52,951	\$52,951	\$114	\$49,901	\$102,966
513219	CLOSE	REPAIR/REPLACE ROOF AT	PROBATION-MURIE	\$80,000		\$101,484	\$101,484	\$248	\$15,386	\$117,118
513220	CLOSE	REPAIR/REPLACE ROOF AT	MEDICAL			\$8,392	\$8,392	\$54,456		\$62,848
513221	CLOSE	REPAIR/REPLACE ROOF AAT HOJ	HALL OF		\$3,084	\$67,658	\$70,743	\$2,950	\$52,150	\$125,844
513231	CLOSE	ENERGY SAVINGS PROJECTS	Service Center Compl				\$0			\$0
513445	CLOSE	Install 2 pole time clock to control	JUVENILE	\$5,000	\$386	\$2,600	\$2,986		\$985	\$3,971
513874	CLOSE	Install (4) Programmable Thermostats	GSA FLEET	\$1,000		\$429	\$429		\$486	\$915
513875	CLOSE	Install TLC Lighting Controls -	DOWNTOWN	\$200		\$14,782	\$14,782	\$4,598	\$285	\$19,666
516567	CLOSE	ADJUST THERMOSTATS FOR	SOUTH COUNTY	\$5,000			\$0			\$0
516568	CLOSE	ADJUST THERMOSTATS FOR	SOUTH COUNTY	\$5,000			\$0			\$0
516573	CLOSE	ADJUST THERMOSTATS FOR	TEMPORARY	\$5,000			\$0			\$0
516574	CLOSE	ADJUST THERMOSTATS FOR	LOS GATOS	\$5,000			\$0			\$0
516576	CLOSE	ADJUST THERMOSTATS FOR	SANTA	\$5,000			\$0			\$0
516577	CLOSE	ADJUST THERMOSTATS FOR	SUNNYVALE	\$5,000		\$574	\$574			\$574
516579	CLOSE	ADJUST THERMOSTATS FOR	TRAFFIC COURT	\$5,000		\$214	\$214			\$214
516581	CLOSE	ADJUST THERMOSTATS FOR	FAMILY COURT	\$5,000		\$77	\$77			\$77
516582	CLOSE	ADJUST THERMOSTATS FOR	SSA/FAMILY	\$5,000		\$171	\$171			\$171
516584	CLOSE	ADJUST THERMOSTATS FOR	Superior Court Admin	\$5,000		\$85	\$85			\$85
516587	CLOSE	ADJUST THERMOSTATS FOR	Superior Court - Pro	\$5,000			\$0			\$0
516589	CLOSE	MISCELLANEOUS OTHER (DO	CRIMINAL COURTS	\$5,000		\$422	\$422		\$72	\$495
516590	CLOSE	ADJUST THERMOSTATS FOR	DOWNTOWN	\$5,000		\$85	\$85			\$85
516591	CLOSE	ADJUST THERMOSTATS FOR	OLD COURT HOUSE	\$5,000		\$514	\$514		\$58	\$573

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
516593	CLOSE	ADJUST THERMOSTATS FOR	HALL OF	\$5,000		\$317	\$317			\$317
517188	CLOSE	INSTALL MOTION SENSORS	GSA	\$5,000			\$0			\$0
517220	CLOSE	RAISE TEMPERATURE IN AREAS	HALL OF	\$700		\$1,158	\$1,158			\$1,158
517421	CANCL	ESTIMATE TO BREAK DOWN THE	MAIN JAIL SOUTH -	\$12,415		\$1,038	\$1,038			\$1,038
521136	CLOSE	INSTALL MOTION SENSORS TO	SSA			\$1,209	\$1,209			\$1,209
521138	CLOSE	INSTALL MOTION SENSORS TO	SSA - CALWORKS	\$5,000		\$5,610	\$5,610		\$153	\$5,764
521142	CLOSE	INSTALL MOTION SENSORS TO	CIVIC CENTER	\$5,000		\$711	\$711			\$711
521145	CLOSE	INSTALL MOTION SENSORS TO	PROBATION-WORK	\$5,000		\$3,281	\$3,281		\$27	\$3,308
521146	CLOSE	INSTALL MOTION SENSORS TO	SSA CHILD	\$5,000		\$1,058	\$1,058			\$1,058
521147	CLOSE	INSTALL MOTION SENSORS TO	MEDICAL	\$5,000		\$2,609	\$2,609			\$2,609
523543	CLOSE	PUT CONTROLS ON HR DEPT.	CCOB-EAST WING	\$5,000		\$2,646	\$2,646			\$2,646
523545	CLOSE	DIM STAIRWELL LIGHTS	NORTH COUNTY	\$5,000		\$12,939	\$12,939		\$190	\$13,129
523677	CLOSE	INSTALL MOTION SENSORS FOR	NORTH COUNTY	\$5,000		\$1,185	\$1,185			\$1,185
524306	CLOSE	PUT TIMERS OR MOTION	JUVENILE			\$3,847	\$3,847		\$6,588	\$10,435
524307	CLOSE	PUT TIMERS OR MOTION	HALL OF	\$5,000		\$257	\$257			\$257
524309	CLOSE	PUT TIMERS OR MOTION	GSA-GARAGE	\$5,000		\$1,158	\$1,158			\$1,158
524310	CLOSE	PUT TIMERS OR MOTION	ROADS &	\$5,000			\$0			\$0
524311	CLOSE	PUT TIMERS OR MOTION	FAIR OAKS MENTAL	\$5,000		\$360	\$360			\$360
524312	CLOSE	PUT TIMERS OR MOTION	MEDICAL	\$5,000		\$302	\$302			\$302
524313	CLOSE	PUT TIMERS OR MOTION	CRIMINAL COURTS	\$5,000		\$2,317	\$2,317			\$2,317
524314	CLOSE	PUT TIMERS OR MOTION	GSA	\$5,000	\$351	\$2,278	\$2,630			\$2,630
524315	CLOSE	PUT TIMERS OR MOTION	CCOB-WEST WING	\$5,000		\$1,115	\$1,115			\$1,115
524317	CLOSE	PUT TIMERS OR MOTION	CCOB-EAST WING	\$5,000		\$858	\$858			\$858
524319	CLOSE	PUT TIMERS OR MOTION	COUNTY SERVICE	\$5,000		\$714	\$714			\$714
524320	CLOSE	PUT TIMERS OR MOTION	COUNTY SERVICE	\$5,000		\$257	\$257			\$257
524321	CLOSE	PUT TIMERS OR MOTION	COUNTY SERVICE	\$5,000		\$909	\$909			\$909
524322	CLOSE	install timers or sensors on lights	DOWNTOWN	\$5,000			\$0			\$0
524323	CLOSE	PUT LIGHTS ON TIMER OR	LOS GATOS	\$5,000		\$609	\$609			\$609
524325	CLOSE	PUT LIGHTS ON TIMER OR	OLD COURT HOUSE			\$386	\$386			\$386
524326	CLOSE	PUT LIGHTS ON TIMER OR	DOWNTOWN	\$5,000		\$600	\$600			\$600
524328	CANCL	PUT LIGHTS ON TIMER OR	SHERIFF	\$5,000		\$257	\$257			\$257
524329	CLOSE	PUT LIGHTS ON TIMER OR	SOUTH COUNTY			\$756	\$756			\$756

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WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
524331	CLOSE	PUT LIGHTS ON TIMER OR	San Martin VHC (Adul	\$5,000			\$0			\$0
524332	CLOSE	PUT LIGHTS ON TIMER OR	SAN MARTIN VHC			\$604	\$604			\$604
524334	CLOSE	PUT LIGHTS ON TIMER OR	SOUTH COUNTY	\$5,000			\$0			\$0
524339	CLOSE	PUT TIMERS OR MOTION	HALL OF	\$5,000		\$85	\$85			\$85
524345	CLOSE	PUT TIMERS OR MOTION	SANTA	\$5,000		\$1,476	\$1,476			\$1,476
524346	CLOSE	PUT TIMERS OR MOTION	NORTH COUNTY	\$5,000		\$128	\$128			\$128
524349	CLOSE	PUT TIMERS OR MOTION	NORTH COUNTY	\$5,000		\$3,733	\$3,733			\$3,733
524351	CLOSE	PUT TIMERS OR MOTION	MAIN JAIL SOUTH -	\$5,000		\$429	\$429			\$429
524352	CLOSE	PUT TIMERS OR MOTION	MAIN JAIL NORTH -	\$5		\$128	\$128			\$128
524586	CLOSE	INSTALL TIMERS OR MOTION	WEST VALLEY	\$5,000		\$1,925	\$1,925			\$1,925
525103	CLOSE	REPLACE 9 INCANDESCENT EXIT	MEDICAL	\$5,000		\$507	\$507			\$507
526043	CLOSE	PROVIDE ENERGY RELATED	SUNNYVALE	\$5,000	\$128	\$2,212	\$2,341			\$2,341
526044	CLOSE	PROVIDE ENERGY RELATED	STARLIGHT	\$5,000		\$11,208	\$11,208	\$555		\$11,763
526046	CLOSE	PROVIDE ENERGY RELATED	TRAFFIC COURT	\$5,000		\$738	\$738			\$738
526047	CLOSE	PROVIDE ENERGY RELATED	ALMADEN	\$5,000		\$2,020	\$2,020	\$1,236		\$3,257
526049	CANCL	PROVIDE ENERGY RELATED	SSA CHILD	\$5,000			\$0			\$0
526050	CANCL	PROVIDE ENERGY RELATED	SILVER CREEK	\$5,000			\$0			\$0
526052	CANCL	PROVIDE ENERGY RELATED	SANTA	\$5,000			\$0			\$0
528501	CLOSE	RE-SET THERMOSTATS.	DOWNTOWN	\$1,000			\$0			\$0
528502	CLOSE	RE-SET THERMOSTATS.	Chaboya VHC	\$1,000		\$120	\$120			\$120
528503	CLOSE	RE-SET THERMOSTATS.	PARK ALAMEDA	\$1,000			\$0			\$0
528508	CLOSE	RE-SET THERMOSTATS.	TRAFFIC COURT	\$1,000		\$1,467	\$1,467			\$1,467
528510	CLOSE	RE-SET THERMOSTATS.	PROBATION-MURIE	\$1,000		\$257	\$257			\$257
528516	CLOSE	RE-SET THERMOSTATS.	ALCOHOL	\$1,000		\$85	\$85			\$85
528521	CLOSE	RE-SET THERMOSTATS.	ALMADEN	\$1,000		\$171	\$171			\$171
528525	CLOSE	RE-SET THERMOSTATS.	NORTH COUNTY	\$1,000		\$171	\$171			\$171
528528	CLOSE	RE-SET THERMOSTATS.	PROBATION-WORK	\$1,000		\$171	\$171			\$171
528536	CLOSE	RE-SET THERMOSTATS. Closed as	SUNNYVALE	\$1,000			\$0			\$0
528542	CLOSE	RE-SET THERMOSTATS. Closed as	FAIR OAKS MENTAL	\$1,000			\$0			\$0
528543	CLOSE	RE-SET THERMOSTATS. Closed as	SANTA	\$1,000		\$171	\$171			\$171
528545	CLOSE	RE-SET THERMOSTATS.	LOS GATOS	\$1,000		\$171	\$171			\$171
528546	CLOSE	RE-SET THERMOSTATS.	SOUTH COUNTY	\$1,000		\$42	\$42			\$42

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
528547	CLOSE	RE-SET THERMOSTATS.	SOUTH COUNTY	\$1,000		\$171	\$171			\$171
528548	CLOSE	RE-SET THERMOSTATS.	SOUTH COUNTY	\$1,000		\$42	\$42			\$42
528549	CLOSE	RE-SET THERMOSTATS.	SOUTH COUNTY	\$1,000		\$42	\$42			\$42
528550	CLOSE	RE-SET THERMOSTATS.	SOUTH COUNTY	\$1,000		\$42	\$42			\$42
528551	CLOSE	RE-SET THERMOSTATS. Closed as	VASONA	\$1,000		\$171	\$171			\$171
528552	CLOSE	RE-SET THERMOSTATS.	JAMES	\$1,000		\$171	\$171			\$171
528578	CLOSE	RE-SET THERMOSTATS.	JUVENILE	\$1,000			\$0			\$0
528579	CLOSE	RE-SET THERMOSTATS.	ELMWD REHAB	\$1,000		\$497	\$497			\$497
528581	CLOSE	RE-SET THERMOSTATS.	ELMWD REHAB	\$1,000		\$514	\$514			\$514
528582	CLOSE	RE-SET THERMOSTATS.	HOLDEN	\$1,000		\$171	\$171			\$171
532259	CLOSE	INSTALL PRE-WIRING FOR	MAIN JAIL SOUTH -	\$5,000		\$13,335	\$13,335			\$13,335
532261	CLOSE	INSTALL PRE-WIRING FOR	METHADONE	\$5,000		\$429	\$429			\$429
532263	CLOSE	INSTALL PRE-WIRING FOR	**DEMOLISHED**V	\$5,000			\$0			\$0
532265	CLOSE	INSTALL PRE-WIRING FOR	EAST VALLEY	\$5,000			\$0			\$0
532266	CLOSE	INSTALL PRE-WIRING FOR	EAST VHC (MH)	\$5,000		\$446	\$446			\$446
532287	CLOSE	INSTALL PRE-WIRING FOR	GSA-GARAGE GAS	\$5,000			\$0			\$0
532288	CLOSE	INSTALL PRE-WIRING FOR	GSA FLEET	\$5,000			\$0			\$0
532289	CLOSE	INSTALL PRE-WIRING FOR	GSA-FLEET				\$0			\$0
532291	CLOSE	INSTALL PRE-WIRING FOR	CIVIC CENTER	\$5,000		\$1,287	\$1,287			\$1,287
532292	CLOSE	INSTALL PRE-WIRING FOR	JUVENILE	\$5,000		\$4,764	\$4,764	\$239		\$5,003
532293	CLOSE	INSTALL PRE-WIRING FOR	ROADS	\$5,000		\$1,373	\$1,373			\$1,373
532294	CLOSE	INSTALL PRE-WIRING FOR	COUNTY SERVICE	\$5,000		\$738	\$738	\$287		\$1,025
532295	CLOSE	INSTALL PRE-WIRING FOR	COUNTY SERVICE	\$5,000		\$1,287	\$1,287			\$1,287
532296	CLOSE	INSTALL PRE-WIRING FOR	COUNTY SERVICE	\$5,000		\$429	\$429	\$2,250		\$2,679
534355	CLOSE	INSTALL PRE-WIRING FOR	SOUTH COUNTY	\$5,000		\$446	\$446			\$446
534357	CLOSE	INSTALL PRE-WIRING FOR	SOUTH COUNTY	\$5,000		\$703	\$703			\$703
534359	CLOSE	INSTALL PRE-WIRING FOR	LOS GATOS	\$5,000		\$909	\$909			\$909
534360	CLOSE	INSTALL PRE-WIRING FOR	SANTA	\$5,000		\$1,458	\$1,458			\$1,458
534362	CLOSE	INSTALL PRE-WIRING FOR	FAIR OAKS VHC	\$5,000		\$257	\$257			\$257
534364	CLOSE	INSTALL PRE-WIRING FOR	FAIR OAKS MENTAL	\$5,000		\$257	\$257			\$257
534365	CLOSE	INSTALL PRE-WIRING FOR	SUNNYVALE	\$5,000		\$411	\$411			\$411
534368	CLOSE	INSTALL PRE-WIRING FOR	PARK ALAMEDA	\$5,000		\$411	\$411			\$411

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
534370	CLOSE	INSTALL PRE-WIRING FOR	EAST VHC (PH)	\$5,000		\$1,132	\$1,132			\$1,132
534371	CLOSE	INSTALL PRE-WIRING FOR	OLD COURT HOUSE	\$5,000		\$703	\$703			\$703
534372	CLOSE	INSTALL PRE-WIRING FOR	DOWNTOWN	\$5,000		\$1,047	\$1,047			\$1,047
534373	CLOSE	INSTALL PRE-WIRING FOR	Elmwood Rehabilitati	\$5,000		\$24,543	\$24,543		\$2,519	\$27,063
534376	CLOSE	INSTALL PRE-WIRING FOR	PROBATION-WORK	\$5,000		\$1,029	\$1,029			\$1,029
534393	CLOSE	INSTALL PRE-WIRING FOR	HOLDEN	\$5,000		\$2,351	\$2,351		\$947	\$3,298
534394	CLOSE	INSTALL PRE-WIRING FOR	JAMES	\$5,000		\$3,665	\$3,665			\$3,665
534396	CLOSE	INSTALL PRE-WIRING FOR	ALCOHOL	\$5,000		\$1,905	\$1,905			\$1,905
534397	CLOSE	INSTALL PRE-WIRING FOR	PROBATION-MURIE	\$5,000		\$411	\$411			\$411
534399	CLOSE	INSTALL PRE-WIRING FOR	CHILD SHELTER	\$5,000		\$3,896	\$3,896			\$3,896
534400	CLOSE	INSTALL PRE-WIRING FOR	GSA	\$5,000		\$377	\$377			\$377
534401	CLOSE	INSTALL PRE-WIRING FOR	GSA	\$5,000		\$377	\$377			\$377
534402	CLOSE	INSTALL PRE-WIRING FOR	WOMENS	\$5,000		\$978	\$978			\$978
534403	CLOSE	INSTALL PRE-WIRING FOR	MAIN JAIL NORTH -	\$5,000		\$291	\$291			\$291
534404	CLOSE	INSTALL PRE-WIRING FOR	GSA-GARAGE GAS	\$5,000			\$0			\$0
534405	CLOSE	INSTALL PRE-WIRING FOR	****VACANT*MENT	\$5,000			\$0			\$0
534406	CLOSE	INSTALL PRE-WIRING FOR	SHOP	\$5,000		\$421	\$421			\$421
534408	CLOSE	INSTALL PRE-WIRING FOR	Storage Shed	\$5,000			\$0			\$0
534409	CLOSE	INSTALL PRE-WIRING FOR	Warehouse	\$5,000			\$0			\$0
534410	CLOSE	INSTALL PRE-WIRING FOR	NORTH COUNTY	\$5,000		\$1,939	\$1,939		\$34	\$1,973
534411	CLOSE	INSTALL PRE-WIRING FOR	NORTH COUNTY	\$5,000		\$514	\$514			\$514
534413	CLOSE	INSTALL PRE-WIRING FOR	VECTOR CONTROL	\$5,000		\$171	\$171			\$171
534414	CLOSE	INSTALL PRE-WIRING FOR	WEST VALLEY	\$5,000		\$909	\$909			\$909
534415	CLOSE	INSTALL PRE-WIRING FOR	TEMPORARY	\$5,000		\$1,218	\$1,218			\$1,218
534416	CLOSE	INSTALL PRE-WIRING FOR	SOUTH COUNTY	\$5,000		\$669	\$669			\$669
535232	CLOSE	ESTIMATE TO UPGRADE	MAIN JAIL SOUTH -	\$5,000		\$171	\$171			\$171
537770	CANCL	Contract for electrical Power	COUNTY SERVICE	\$12,000	\$193	\$6,894	\$7,087	\$11,600		\$18,687
539449	CLOSE	Tint remaining courts windows for	HALL OF	\$5,000		\$53	\$53	\$29,712		\$29,765
540214	CLOSE	Purchase Power Meters for various	COUNTY SERVICE	\$270,000	\$15,247	\$108,260	\$123,507	\$1,020	\$3,296	\$127,823
559622	CLOSE	DETERMINE IF NEEDED AND	CCOB-EAST WING	\$5,000		\$85	\$85			\$85
559628	CLOSE	DETERMINE IF NEEDED AND	WEST VALLEY	\$5,000		\$85	\$85			\$85
559629	CLOSE	DETERMINE IF NEEDED AND	LOS GATOS	\$5,000		\$257	\$257			\$257

GSA - Facilities Department - Building Operations Division
Expense Report: ATTACHMENT 1- ENERGY CONSERVATION PROJECTS MATRIX

WoNum	Status	Description	Bldg Nm	Est Cost	LABOR		TOTAL LABOR	MATERIAL	SERVICE VENDOR	TOTAL COST
					Overtime	Regular				
559630	CLOSE	DETERMINE IF NEEDED AND	CRIMINAL COURTS	\$5,000		\$532	\$532			\$532
559632	CLOSE	DETERMINE IF NEEDED AND	ROADS &	\$5,000		\$85	\$85			\$85
559633	CLOSE	DETERMINE IF NEEDED AND	FAIR OAKS MENTAL	\$5,000		\$197	\$197			\$197
559634	CLOSE	DETERMINE IF NEEDED AND	FAIR OAKS VHC	\$5,000		\$205	\$205			\$205
559635	CLOSE	DETERMINE IF NEEDED AND	NORTH COUNTY	\$5,000		\$514	\$514			\$514
559636	CLOSE	DETERMINE IF NEEDED AND	Juvenile Probation &	\$5,000		\$674	\$674			\$674
559637	CLOSE	DETERMINE IF NEEDED AND	MAIN JAIL SOUTH -	\$5,000			\$0			\$0
559638	CLOSE	DETERMINE IF NEEDED AND	MAIN JAIL NORTH -	\$5,000			\$0			\$0
560933	CLOSE	ESTIMATE COST TO UPGRADE	OFFICE FOR DEBS	\$5,000		\$619	\$619		\$438	\$1,057
560935	CLOSE	ESTIMATE COST OF UPGRADING	MENTAL HEALTH /	\$5,000		\$775	\$775			\$775
560937	CLOSE	ESTIMATE COST OF UPGRADING	SSA/CAL WORKS	\$5,000		\$1,058	\$1,058		\$2,170	\$3,228
561664	CLOSE	Lower t-stats and replace damaged	HALL OF	\$5,000		\$1,244	\$1,244			\$1,244
564910	CLOSE	DETERMINE IF NEEDED AND	SHERIFF	\$5,000		\$6,170	\$6,170		\$3,000	\$9,170
564911	CLOSE	DETERMINE IF NEEDED AND	COUNTY SERVICE	\$5,000		\$3,115	\$3,115		\$3,862	\$6,977
564913	CLOSE	DETERMINE IF NEEDED AND	SOUTH COUNTY	\$5,000		\$343	\$343		\$1,071	\$1,414
564914	CLOSE	DETERMINE IF NEEDED AND	San Martin VHC (Adul	\$5,000		\$188	\$188			\$188
564915	CLOSE	DETERMINE IF NEEDED AND	MEDICAL	\$5,000		\$171	\$171			\$171
564919	CLOSE	INSTALL LOCKING THERMOSTAT	ADMIN SSA	\$5,000		\$4,149	\$4,149			\$4,149
564920	CLOSE	INSTALL LOCKING THERMOSTAT	DEPT OF FAMILY &	\$5,000		\$5,594	\$5,594			\$5,594
573859	CLOSE	PROVIDE PG&E REQUESTED	SSA/CAL WORKS	\$180,000		\$18,908	\$18,908			\$18,908
573862	CLOSE	PROVIDE PG&E REQUESTED	OFFICE FOR DEBS	\$7,000		\$3,608	\$3,608			\$3,608
575492	CLOSE	Improve Lighting in Boiler Room -	MAIN JAIL SOUTH -	\$6,000		\$3,484	\$3,484			\$3,484
575569	CLOSE	Adjust Lighting in the Garage - Park	CIVIC CENTER	\$5,000		\$7,989	\$7,989		\$5,666	\$13,656
582163	CLOSE	SUPPORT RE-LAMPING	CCOB-EAST WING				\$0	\$30,011		\$30,011
582165	CLOSE	INSTALL MOTION SENSORS	PUBLIC DEFENDER			\$472	\$472		\$86	\$558
583713	CLOSE	Support Electrical Power Monitoring	COUNTY SERVICE	\$15,000		\$2,438	\$2,438		\$8,387	\$10,825
586867	CLOSE	Relamp warehouse - Building One -	COUNTY SERVICE	\$2,700		\$666	\$666	\$3,034	\$441	\$4,142
600443	CLOSE	GROUPS 1 & 2 - ENERGY	COUNTY SERVICE	\$463,658			\$0			\$0
600444	CLOSE	PRISON TOILET SYSTEM -	COUNTY SERVICE	\$324,508			\$0			\$0
622980	CLOSE	SUB 600444 - M4 TOILETS -	COUNTY SERVICE				\$0			\$0
622982	CLOSE	SUB of 600444 - TOILETS M5 -	COUNTY SERVICE				\$0			\$0

TOTALS:

\$145,771

\$1,667,742

\$1,813,513

\$351,974

\$621,463

\$2,786,951

Selection Criteria: WorkType=F, PCA=BOENE

Group By: WoNum

Start Date: 01/01/2000

End Date: 09/01/2004

POLICY RESOLUTION # 06-03
Of the Board of Supervisors of the County of Santa Clara
Approving Modifications to the Board Policy Manual Relating to
Green Building Policy

WHEREAS, the County of Santa Clara supports sustainable economic development by encouraging the expansion of jobs in the environmental services and materials sector, which includes green building practices, products and technologies; and

WHEREAS, the County of Santa Clara recognizes and accepts its responsibility to implement and promote building practices that protect the Santa Clara natural environment; and

WHEREAS, development and construction practices are significant contributors to the depletion of natural resources and a contributing cause of water and air pollution, solid waste, deforestation, toxic wastes, health hazards, global warming, and other negative consequences; and

WHEREAS, buildings use one quarter of the entire world's wood harvest, consume two fifths of all materials and energy flows, and contribute to CO2 emissions; and

WHEREAS, the United States Green Building Council has created Leadership in Energy and Environmental Design (LEED) standards that identify a range of actions defining green buildings and establishing certification processes for new and existing buildings; and

WHEREAS, the County of Santa Clara recognizes that green building complements many existing policies and initiatives related to energy conservation and alternative energy production, waste reduction, waste recycling, use of degradable plastic products, e-waste management, pest management, and low emission vehicles use in the County Fleet;

WHEREAS, the proposed Green Building Policy contains strategies to 1) evaluate LEED certification in all new construction of County owned buildings where appropriate, 2) use green building goals and practices in renovations and operations of existing facilities, 3) provide training and education for all appropriate County procurement, capital projects and facility management staff on green building practices and products, and 3) promote voluntary application of green building guidelines in private sector building design, construction and operations; and

WHEREAS, the County of Santa Clara has already pursued LEED certification and applied green building principles in recent bond financed capital projects

including the Crime Laboratory, and Santa Clara Valley Health Clinics at Gilroy, Milpitas, and Fair Oaks; and

WHEREAS, the County of Santa Clara finds that green design and construction decisions made during the construction and remodeling of County owned buildings can result in significant cost savings to the County over the life of the buildings; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Santa Clara that a Green Building policy be established and that the Board of Supervisor's Policy Manual is hereby amended adding Section 7.14 as follows to establish this policy;

BE IT FURTHER RESOLVED that the Clerk of the Board is directed to incorporate this additional language into the Manual so that it is available to all County staff.

PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Clara, State of California, on _____ by the following vote:

AYES: Supervisors

NOES: Supervisors

ABSTAIN: Supervisors

ABSENT: Supervisors

James T. Beall Jr., Chair
Board of Supervisors

ATTEST: _____
Phyllis Perez, Clerk
Board of Supervisors

DATED: _____

APPROVED AS TO FORM AND LEGALITY

County Counsel

DATED: _____

7.14. GREEN BUILDING POLICY

7.14.1 Introduction

“Green building” is the practice of constructing and maintaining buildings in a manner that provides for efficient and sustainable usage of building materials; provides for water and energy conservation; provides for a healthy work environment; and reduces waste and pollution from building construction, maintenance, and demolition.

The Leadership in Energy and Environmental Design (LEED) program, as developed by the United States Green Building Council, is the most extensive, authoritative and well recognized standard that distinguishes “green buildings” from other buildings. The LEED program makes this distinction by providing common standards of measurement for designing, constructing, and maintaining “green buildings.” Common measurement standards include usage of sustainable, recyclable, and non-toxic building materials; standards for reduced energy and water consumption; and construction practices that reduce environmental impacts.

7.14.2 Policy Statement

It is the policy of the Board of Supervisors that “green building” standards, as defined by the LEEDS program and other applicable government building codes, be implemented for purposes of constructing and maintaining County owned buildings in a manner that provides for efficient and sustainable usage of building materials; provides for water and energy conservation; provides for healthy work environments; and reduces waste and pollution from building construction, maintenance, and demolition.

The County of Santa Clara recognizes that establishing this policy provides a model for other jurisdictions, the private sector and County residents. As such it is intended to establish practices, training programs and procedures that may be of interest to individuals and organizations. Educational materials will be available to the public through publicly accessible documentation on the County website, and through the Planning Department.

7.14.3 Procedures

The following procedures will be used in designing, constructing, maintaining and demolishing buildings in accordance with “green building” concepts:

- (A) The LEED program and its guidelines will be the County’s primary “green building” standard for designing, constructing, maintaining, and demolishing buildings.

- (B) The LEED program has four levels of "green building" performance (Certified, Silver, Gold, and Platinum). During the design of each new building, Capital Programs Division will provide a recommendation to the Board of Supervisors regarding the appropriate level of LEED certification and the resulting benefits and costs.
- a. Certain new building types may not be appropriate for LEED certification. In these situations Capital Programs will provide a report explaining why LEED certification is not appropriate.
 - b. The County may also construct a building to LEED standards, but forgo the administrative costs of pursuing formal LEED certification recognition from the United States Green Building Council. Capital Programs will provide information regarding the administrative costs of pursuing formal LEED certification in its recommendation to the Board of Supervisors.
- (C) Based upon this information and recommendation, the Board of Supervisors will provide direction regarding the level of LEED performance to be achieved for each new County owned building, and whether the LEED certification process will be pursued to obtain formal LEED recognition from the United States Green Building Council.
- (D) Where no LEED program certification standard exists, the intent of this policy is that green building practices will be applied to the extent practicable.
- (E) In addition to LEED goals, an additional design goal will be established for new facilities to exceed California Title 24 Building Code energy consumption regulations.
- (F) New County owned buildings will also be designed to control storm water runoff in accordance with the requirements and procedures set forth in the Santa Clara Valley Urban Runoff Pollution Prevention Program.
- (G) LEED "green building" concepts will be used in building renovations. These concepts will include to the extent practicable, but not be limited to, improving water and energy conservation; using non-toxic materials; using sustainable and recyclable materials; and recycling demolition materials.
- (H) Equipment and products used within buildings will meet established Board policies pertaining to waste reduction, waste recycling, degradable plastic products, e-waste management, energy efficient equipment, pest management, and other related policies.

- (I) "Green building" expertise will be a criterion in selecting architectural and engineering firms.
- (J) An evaluation of renewable and/or other alternative energy sources will be made during the design of new buildings.
- (K) An energy analysis will be performed for the design of each new building, and each energy analysis will receive a design peer review.
- (L) To the extent that it is economical and practical, the construction design for each new building will include installation of individual power meters that are compatible with and can be incorporated into the Building Operations Enterprise Energy Management System for energy data collection, analysis and building energy management.

7.14.4 Education

The County will promote "green building" practices by:

- (A) Providing educational brochures and information accessible via the County website and at the Planning Department Development services counter.
- (B) Participating in and sponsoring educational events.
- (C) Training capital project managers and selected facility management staff on "green building" practices.
- (D) Partnering with organizational groups that are promoting "green building" practices.