

County of Santa Clara Facilities And Fleet Department



FAF01 061306

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DATE: June 13, 2006

TO: Board of Supervisors

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

SUBJECT: Budget Letter #9: Alternative Uses of Williams Settlement Funds

RECOMMENDED ACTION

Accept report relating to budget workshop referral on alternate uses of Williams Settlement Funds.

FISCAL IMPLICATIONS

There are no fiscal impacts associated with accepting this report.

CONTRACT HISTORY

Not Applicable.

REASONS FOR RECOMMENDATION

During Budget Workshops, Supervisors Gage and Kniss requested information on unfunded energy conservation projects. Following the Finance and Government Operations Committee meeting, Supervisor Kniss requested information on local firms doing business in the alternative energy market segment, and the job growth potential for these markets. This budget letter responds to both referrals.

BACKGROUND

Energy Conservation

Energy Conservation remains a high priority for the Facilities and Fleet Department (FAF). Energy Conservation projects are annually proposed as part of the 10–Year Capital Improvement Plan (CIP), and are recommended to the Board in relation to other projects during the Capital Project review process.

In FY 2002, the Board of Supervisors created the Energy Task Force. Chaired by Supervisors Kniss and McHugh, the task force identified and implemented many energy conservation measures. In FY 2003, two million dollars were allocated to Energy Conservation projects in the CIP.

Since FY 2003, Energy Conservation projects have been proposed each year but ultimately have not received funding in the annual Capital Budget process. These decisions have resulted from a shortage of one–time funds, and the prioritization of life safety and critical building maintenance and County program issues. Although not prioritized for one–time funding, Building Operations continues to replace HVAC systems and appliances with more energy efficient models as part of the Backlog / Lifecycle Replacement maintenance program. Funding for this maintenance program has been reduced by 33 % since FY 2002.

The attached list describes 141 unfunded energy conservation projects worth \$11.6 million with financial payback periods varying from less than one year to 12 years. As the list demonstrates, Santa Clara County would realize a positive ongoing savings of \$1.3 million given a one–time \$11.6 million investment in energy conservation. The \$1.3 million in ongoing savings would be greater if State incentives and rebates were included. Calculating

rebate savings was beyond the scope of this referral.

Investment, Entrepreneurial Activity and Job Growth Potential in the Bay Area Alternative Energy Market Segment

In an effort to "future proof" or reduce risks associated with increasing energy costs, local companies, Bay Area counties, and states nationwide are investing in a mix of energy cost reduction strategies and efforts to reduce global warming including;

- energy conservation,
- on-site alternative energy production,
- reduced CO2 emissions.

At a recent presentation to Sustainable Silicon Valley members, Alza Corporation described how they are using methane from the Shoreline Amphitheater landfill to generate electricity, thereby achieving grid independence, and reduced carbon emissions for a net investment of \$7.5 million. Cisco Systems has invested in energy conserving lighting fixtures saving \$4.5 million in annual operating costs. Alameda County has invested in a one megawatt fuel cell/photovoltaic system to power the County jail. Both public sector and private sector entities face energy cost increases and future price volatility such that reducing energy costs are a budget priority.

The Bay Area is host to several companies and venture capital investors at the leading edge of "clean technology." Clean technology covers a range of industry segments from alternative energy to water purification to advanced materials. Although not a comprehensive list, a few of these local firms are described below:

- Aurora BioFuels (Berkeley, CA) – creating bio-diesel with 125 times higher yields and 50% lower costs than current production methods.
- Electro Automotive (Santa Cruz, CA) – a company that sells gas-to-electric conversion kits for cars.
- Evogy Inc. (San Jose, CA) – a start-up company making tubular solid oxide fuel cell systems
- Miasolé (Santa Clara, CA) – a company that manufactures a thin-film photovoltaic cell. It consists of an ultra-thin layer of photoactive material on a stainless steel foil that

can be incorporated into building materials.

- Nanosys and Nanosolar (Palo Alto, CA) – a company that creates flexible thin film photovoltaic plastics that are spread across rooftops or built into building materials.

The Bay Area venture capital community continues to invest in clean technology, albeit this support appears to be increasing at a slower rate relative to other areas of the nation. Nationally, clean technology as a market segment now ranks 6th in size behind venture capital investment in software, biotechnology, telecommunications, medical equipment, and semiconductors. West Coast investment at \$41 million has slipped to 4% of the over \$1 billion in national venture capital committed annually to clean technology.

California appears to lag other major states in creating incentives for local investment. A recent study shows that other regions of the Country are more active than California in establishing state and local incentives that encourage alternative energy investment, development and demonstration projects. FAF staff compared the study results for California with New York, Florida, Massachusetts and Ohio. The attached table illustrates the differences in state and local incentives. Some highlights include:

- California has fairly comparable clean energy rebate programs , but is weaker in research and development support.
- Massachusetts offers a unique personal and income tax credit exemption for earnings resulting from alternative energy or energy conservation patents.
- Pennsylvania has a dedicated State Venture Capital fund of \$60 million that leverages private equity of over \$180 million.

Many of the locally supported demonstration projects in other states are offered to specific local fuel cell vendors such as Plug Power in New York. New York clearly leads with more stationary fuel cell demonstration projects outranking California almost two to one. Although California has a strong venture capital base and an active entrepreneurial environment, this does not appear to translate into stationary distributed generation demonstration projects. This may be the result of the Governor's focus on Hydrogen Highway refueling and vehicle projects instead of stationary fuel cell projects.

Other regions are using local incentives to attract firms and compete for future job growth in the clean technology sector. Federal, state and local investment is widely believed to generate significant job growth. The Renewable Energy Project, a Washington D.C. based nonprofit, has studied job growth potential resulting from investment in wind and solar power. The study indicates that a national investment in wind power has the potential to benefit 20 states. Those states would receive 80% of the job creation. In an in-depth study for Ohio State, job growth was analyzed for each of the individual manufacturing sectors involved in a wind turbine project. The study concluded that an estimated 11,688 jobs would be created from a single project. (See <http://www.crest.org>).

Summary

In summary, FAF administration recommends the County identify ongoing sources of funding for both energy conservation and alternative power generation projects. Building Operations has identified \$11 million in Energy Conservation projects, many with payback periods of 5 years or less. These projects will continue to be incorporated into the 10-Year Capital Improvement Plan and will be evaluated during the annual Capital Budget process. In addition, consistent with the Green Building Policy, Capital Programs will review potential opportunities for alternative power generation on a project by project basis.

CONSEQUENCES OF NEGATIVE ACTION

None.

STEPS FOLLOWING APPROVAL

None

ATTACHMENTS

- Comparative Analysis of California and 5 Other States
- List of Energy Projects