

County of Santa Clara Facilities And Fleet Department



FAF01 061306

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DATE: June 13, 2006

TO: Board of Supervisors

FROM: *Larry Jenkins SD*
Larry Jenkins
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

Comparative Analysis of California and 5 Other States Stationary Distributed Power Generation Incentives			
State	Incentives/Market Stimulation	R&D Support	State/Locally Supported Demonstration Projects
California	Emerging Renewable Program Rebate - \$3.20/w for 30kW or less	Public Interest Energy Research Program Grants	16 projects
	Industrial Development Bond Financing Program - below market rate loans up to \$40 million per project	Energy Innovations Small Grant Program	
	Self Generation Incentive Program Rebate - level 1 \$4.50/w, level 2 \$2.50/w		
Massachusetts	Alternative Energy and Energy Conservation Patent Exemption- personal and corporate income tax deductions for patent income	Renewable Energy Trust \$25 million investment per year for 5 years	3 projects
		Large Onsite Renewable Initiative - design, construction and feasibility grants	
		Sustainable Energy Economic Development Initiative -loans	
		Massachusetts Green Power Partnership - long term contracts for renewable energy credits	
New Jersey	Clean Energy Rebate Program	Renewable Energy Business Venture Assistance Program	4 projects
	Combined Heat and Power Program rebate \$4.00/w up to 1 MW		
	Renewable Energy Advanced Power Program - seed grants		
New York	Fuel Cell Electric Generating Equipment Tax Credit - 20% of system cost for PEM only	New York State Energy Research and Development Authority - financial incentives	31 projects
	New York Green Building Tax Credit- up to \$2 million per building	Hydrogen Technology Demonstration Project - \$1.5 million in grants	
	Peak Load Reduction Program - grants for projects 20Kw +	Power Systems Grant	
		New York Energy Smart Programs -grants	
		Combined Heat and Power Demonstration project grants	
		Long Island Power Authority Clean Project grants	
		New York Power Authority grants	
Ohio	Energy Efficiency Revolving Loan Fund	Third Frontier Project - 10 Year investment of \$1.6 Billion in grant funds	4 projects
Pennsylvania	Energy Harvest Grant Program	New PA Venture Capital Investment Fund - \$60 million Governor's budget leverages \$180 million private equity	3 projects
	Sustainable Energy Funds - grants and loans		
	TRF Energy Fund - financing for non-profits		
	Pennsylvania Energy Development Authority - grants, loans and loan guarantees		

Source: Breakthrough Technologies Institute, Inc. State Activities that Promote Fuel Cells and Hydrogen Infrastructure Development.

UNFUNDED ENERGY CONSERVATION PROJECTS

(June 5, 2006)

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
6187	Reprogram Elmwood Medical Processing Building Controls	\$50,288	\$32,009	\$32,009	0.6
6193	Reprogram Elmwood Admin Building Controls	\$32,378	\$64,288	\$96,297	2.0
1309	Retrofit Mariposa Lodge Kitchen Evaporative AC	\$1,332	\$3,917	\$100,213	2.9
6188	Install Elmwood W2 water control systems	\$19,518	\$57,940	\$158,153	3.0
6185	Reprogram Elmwood Programs Building Controls	\$13,204	\$43,354	\$201,507	3.3
6184	Retrofit Elmwood West Gate Lighting Controls	\$1,837	\$7,698	\$209,205	4.2
5908	Retrofit Juvenile Detention Lighting	\$6,268	\$27,856	\$237,061	4.4
0916	Retrofit Park Alameda HVAC w/ High Efficiency Motors	\$1,068	\$4,970	\$242,031	4.7
3102	Install Animal Shelter Energy Savings Ceiling	\$2,870	\$13,506	\$255,537	4.7
0919	Install Timpany Center Pool Cover	\$2,870	\$13,506	\$269,043	4.7
1324	Install Starlight Pool Cover	\$2,870	\$13,506	\$282,549	4.7
5603	Relamp Berger Building 3 w/ High Efficiency Lighting	\$10,218	\$48,891	\$331,440	4.8
1341-1347	Replace Mariposa Lodge Water Heaters w/Instant Water Heaters	\$6,889	\$33,765	\$365,204	4.9
5100	Retrofit James Ranch Pool w/ Energy Cover	\$574	\$2,836	\$368,041	4.9
0209	Retrofit Superior Court HVAC w/ High Efficiency Motors	\$1,607	\$8,779	\$376,819	5.5
0707	Relamp East Valley Public/ Mental Health	\$11,367	\$63,342	\$440,162	5.6

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
5602	Retrofit Berger 2 Circulating Pumps	\$18,026	\$100,618	\$540,780	5.6
5903	Reprogram Juvenile Probation Building controls	\$6,734	\$36,961	\$577,742	5.5
0916	Retrofit Park Alameda DX Units	\$12,630	\$72,027	\$649,768	5.7
5903	Replace Juvenile Probation VAV Box	\$20,667	\$123,443	\$773,212	6.0
2110	Retrofit Men's Work Furlough DX Units	\$8,255	\$49,323	\$822,535	6.0
0916	Convert Park Alameda Water Heater	\$505	\$3,106	\$825,641	6.1
2110	Convert Men's Work Furlough Water Heaters	\$5,281	\$33,494	\$859,136	6.3
5910	Retrofit Probation – Lobby Wing Air Handling Units	\$1,481	\$9,420	\$868,556	6.4
0935	Retrofit Medical Examiner DX Units	\$9,300	\$59,628	\$928,184	6.4
0960	Install Children's Shelter Laundry Heat/Water Recovery system	\$2,641	\$17,423	\$945,607	6.6
0730	Convert Alexian Drive Complex Methadone Water Heaters	\$551	\$3,782	\$949,388	6.9
6184	Retrofit Elmwood West Gate DX Units	\$1,378	\$9,724	\$959,113	7.1
6193	Reprogram Elmwood Admin Building Lighting Controls	\$6,544	\$46,730	\$1,005,843	7.1
6187	Convert Elmwood Medical Processing Air Handlers	\$16,533	\$121,147	\$1,126,990	7.3
6191	Retrofit Elmwood M4/M5 Air Handling Units	\$18,829	\$137,895	\$1,264,885	7.3
3101	Convert San Martin Drug Abuse Water Heater	\$367	\$2,701	\$1,267,586	7.4
6173	Retrofit Elmwood WDF/W1 DX Units	\$4,707	\$34,980	\$1,302,566	7.4

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
6187	Retrofit Elmwood Medical Processing DX Units	\$6,774	\$49,972	\$1,352,537	7.4
6189	Retrofit Elmwood W3/W4 Air Handlers	\$312,970	\$2,341,101	\$3,693,638	7.5
0103	Retrofit Hall of Justice Water Pumps	\$4,994	\$37,600	\$3,731,238	7.5
0105	Replace HOJ-West Municipal Court HVAC Motor	\$1,309	\$9,792	\$3,741,030	7.5
0105	Retrofit HOJ-West Municipal Court Coil Valves	\$8,654	\$64,625	\$3,805,655	7.5
5601	Retrofit Berger 1 w/ High efficiency Lighting	\$19,174	\$144,647	\$3,950,303	7.5
5903	Isolate Juvenile Probation Boiler	\$1,729	\$12,966	\$3,963,268	7.5
6188	Retrofit Elmwood W2 Air Handling Units	\$8,726	\$65,503	\$4,028,772	7.5
6187	Reprogram Elmwood Medical Processing Lighting Controls	\$4,707	\$35,926	\$4,064,697	7.6
6191	Retrofit Elmwood M4/M5 DX Units	\$12,859	\$97,647	\$4,162,344	7.6
5603	Convert Berger 3 to VAV	\$23,011	\$178,142	\$4,340,486	7.7
6189	Retrofit Elmwood W3/W4 Evaporative Cooling	\$19,748	\$152,211	\$4,492,697	7.7
0500	Convert Women's Residential Heat Pumps	\$28,095	\$219,740	\$4,712,437	7.8
6185	Retrofit Elmwood Programs HVAC Motors	\$1,722	\$13,641	\$4,726,078	7.9
3102	Relamp San Martin Animal Shelter High Efficiency Lighting	\$1,045	\$8,320	\$4,734,397	8.0
6188	Retrofit Elmwood W2 DX Units	\$5,970	\$47,811	\$4,782,208	8.0
3101	Replace San Martin Offices Cooling Coils	\$9,300	\$74,687	\$4,856,895	8.0

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
3101	Relamp San Martin Pediatrics Lighting	\$1,079	\$8,698	\$4,865,593	8.1
2902	Convert West Valley Mental Health Water Heaters	\$402	\$3,241	\$4,868,834	8.1
0707	Retrofit East Valley Public Health DX Units	\$4,133	\$33,494	\$4,902,329	8.1
0404	Isolate Sheriff Department Boiler	\$1,578	\$12,966	\$4,915,295	8.2
0501	Retrofit Communications Water Pumps	\$1,607	\$13,236	\$4,928,530	8.2
0935	Convert Medical Examiner Air Handler	\$4,443	\$37,033	\$4,965,563	8.3
0404	Retrofit Sheriff Department CHWP VFD	\$1,652	\$13,865	\$4,979,428	8.4
0711	Retrofit VMC - East Valley Clinic Pump Drives	\$1,607	\$13,506	\$4,992,934	8.4
1309	Retrofit Mariposa Lodge DX Units	\$2,136	\$18,003	\$5,010,937	8.4
2902	Retrofit West Valley Mental Health Rooftop HVAC	\$700	\$5,970	\$5,016,907	8.5
5601	Retrofit Berger 1 Pumps	\$2,296	\$19,719	\$5,036,625	8.6
6186	Retrofit Elmwood Support Services HVAC Motors	\$4,707	\$40,653	\$5,077,278	8.6
6189	Retrofit Elmwood W3/W4 HVAC Motors	\$4,478	\$38,627	\$5,115,905	8.6
6193	Retrofit Elmwood Admin Building DX Units	\$5,067	\$44,164	\$5,160,069	8.7
6184	Retrofit Elmwood West Gate Air Handlers	\$1,607	\$13,911	\$5,173,980	8.7
6186	Retrofit Elmwood Support Services Compressors	\$6,430	\$56,454	\$5,230,434	8.8
1309	Convert Mariposa Lodge Water Heater	\$1,412	\$12,425	\$5,242,860	8.8

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
0960	Convert Children's Shelter Water Heater	\$1,401	\$12,425	\$5,255,285	8.9
0710	Retrofit East Valley Mental Health SNF DX Units	\$5,683	\$50,512	\$5,305,797	8.9
2005	Retrofit North County Court Building Motors	\$1,894	\$16,869	\$5,322,665	8.9
0916	Install Park Alameda Economizers	\$2,136	\$19,016	\$5,341,682	8.9
0710	Install East Valley Mental Health SNF Economizer	\$4,443	\$39,802	\$5,381,483	9.0
0102	Retrofit CCOB West Wing Cooling Tower VFD	\$4,363	\$39,707	\$5,421,191	9.1
0501	Retrofit Communications HVAC Motors	\$2,985	\$27,147	\$5,448,337	9.1
6170	Retrofit Elmwood M2/M3 Air Handlers	\$9,644	\$86,978	\$5,535,315	9.0
6185	Retrofit Elmwood Programs DX Units	\$2,296	\$20,799	\$5,556,114	9.1
0916	Install Park Alameda Water Pumps	\$3,674	\$33,535	\$5,589,649	9.1
1324	Convert Starlight Water Heaters	\$1,389	\$12,695	\$5,602,344	9.1
0404	Relamp Sheriff Department	\$24,204	\$221,409	\$5,823,753	9.1
5903	Relamp Juvenile Probation	\$14,289	\$130,709	\$5,954,463	9.1
3102	Install San Martin Animal Shelter Thermostats	\$643	\$5,943	\$5,960,405	9.2
6185	Convert Elmwood Programs Air Handlers	\$5,626	\$52,268	\$6,012,673	9.3
6100	Install Elmwood Modular Buildings Lighting Controls	\$4,363	\$41,058	\$6,053,731	9.4
6173	Retrofit Elmwood WDF/W1 HVAC Motors	\$12,630	\$118,446	\$6,172,177	9.4

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
0501	Retrofit Communications Split System	\$2,526	\$24,040	\$6,196,217	9.5
0500	Convert Women's Residential Water Heater	\$1,068	\$10,224	\$6,206,441	9.6
0935	Retrofit Medical Examiner HVAC Motors	\$884	\$8,495	\$6,214,936	9.6
0711	Retrofit VMC - East Valley Clinic Chiller	\$17,522	\$168,958	\$6,383,894	9.6
5909	Retrofit Juvenile Probation Office Wing Air Handling Units	\$1,755	\$16,869	\$6,400,763	9.6
6160	Install Elmwood M8 water control systems	\$20,092	\$192,998	\$6,593,761	9.6
6170	Install Elmwood M2/M3 water control systems	\$74,277	\$710,585	\$7,304,346	9.6
3101	Convert San Martin Main Building Air Handlers	\$5,304	\$51,187	\$7,355,533	9.6
5602	Upgrade Berger 2 HVAC Motors	\$4,363	\$42,543	\$7,398,077	9.8
6160	Retrofit Elmwood M8 Air Handlers	\$12,285	\$120,607	\$7,518,684	9.8
6170	Retrofit Elmwood M2/M3 DX Units	\$6,544	\$63,883	\$7,582,566	9.8
6170	Retrofit Elmwood M2/M3 HVAC Motors	\$2,181	\$21,339	\$7,603,905	9.8
6188	Retrofit Elmwood W2 HVAC Motors	\$1,607	\$15,802	\$7,619,707	9.8
Various	Energy Improvements Analyses (Optimization of systems)	\$0	\$220,000	\$7,839,707	TBD
1324	Install Starlight Evaporative Unit	\$2,583	\$25,661	\$7,865,368	9.9
1301	Convert Wright Ranch Water Heater	\$1,079	\$10,724	\$7,876,092	9.9
0105	Retrofit HOJ-West Municipal Court Air Damper	\$1,676	\$16,842	\$7,892,934	10.0

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
6173	Retrofit Elmwood WDF/W1 Evaporative Unit	\$7,004	\$69,960	\$7,962,894	10.0
0500	Retrofit Women's Residential DX Units	\$1,814	\$18,260	\$7,981,154	10.1
1324	Retrofit Starlight Pump	\$4,638	\$46,717	\$8,027,870	10.1
6185	Reprogram Elmwood Programs Lighting Controls	\$3,904	\$39,437	\$8,067,307	10.1
5100	Retrofit James Ranch Evaporative Cooling	\$4,971	\$50,444	\$8,117,752	10.1
0960	Consolidate Children's Shelter Electric meters	\$16,235	\$165,041	\$8,282,793	10.2
3101	Install San Martin Offices Economizer	\$2,836	\$29,335	\$8,312,128	10.3
6173	Install Elmwood WDF/W1 Water Control system	\$8,381	\$86,842	\$8,398,970	10.4
6189	Install Elmwood W3/W4 Water Control System	\$16,763	\$173,550	\$8,572,520	10.4
2005	Retrofit North County Court Building Air Handlers	\$746	\$7,739	\$8,580,259	10.4
0920	Install Traffic Court Economizers	\$3,008	\$31,361	\$8,611,619	10.4
6186	Relamp Elmwood Support Services	\$11,596	\$121,823	\$8,733,442	10.5
1301	Convert Wright Ranch Water Heaters	\$321	\$3,430	\$8,736,873	10.7
0960	Retrofit Children's Shelter DX Units	\$896	\$9,562	\$8,746,435	10.7
2904	Install Los Gatos Superior Court Economizers	\$1,320	\$14,127	\$8,760,562	10.7
6160	Retrofit Elmwood M8 DX Units	\$8,381	\$89,274	\$8,849,835	10.7
3101	Convert San Martin Drug Abuse Heat Pumps	\$4,202	\$45,109	\$8,894,945	10.7

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
2005	Install North County Court Building VFD	\$2,606	\$28,011	\$8,922,956	10.7
5100	Retrofit James Ranch DX Units	\$2,664	\$29,213	\$8,952,169	11.0
1309	Consolidate Mariposa Lodge HVAC Units	\$2,595	\$28,497	\$8,980,666	11.0
0920	Retrofit Traffic Court DX Units	\$3,961	\$44,043	\$9,024,709	11.1
1301	Consolidate Wright Ranch HVAC Units	\$2,308	\$25,702	\$9,050,410	11.1
0707	Install East Valley Public Health / Mental Health Energy Management System	\$11,826	\$132,357	\$9,182,768	11.2
6186	Install Elmwood Support Services Heat/Water Recovery System	\$2,506	\$28,092	\$9,210,860	11.2
1301	Retrofit Wright Ranch DX Units	\$1,527	\$17,071	\$9,227,931	11.2
1309	Install Mariposa Lodge Economizers	\$2,641	\$29,578	\$9,257,509	11.2
0960	Relamp Children's Shelter w/ High Efficiency Lights	\$5,660	\$63,450	\$9,320,959	11.2
1309	Convert Mariposa Lodge Heat Pumps	\$1,481	\$16,612	\$9,337,571	11.2
2507	Retrofit Santa Clara Court HVAC Motors	\$356	\$4,038	\$9,341,610	11.3
2902	Retrofit West Valley Mental Health DX Units	\$815	\$9,279	\$9,350,888	11.4
0500	Install Women's Residential Thermostats	\$15,985	\$184,220	\$9,535,108	11.5
2904	Retrofit Los Gatos Superior Court DX Units	\$1,630	\$18,692	\$9,553,800	11.5
0730	Retrofit Alexian Methadone Clinic DX Units	\$804	\$9,238	\$9,563,038	11.5
6100	Retrofit Elmwood Modular Building Heat Pumps	\$5,511	\$63,342	\$9,626,380	11.5

Facility #	Project Title	Estimated Annual Savings	Estimated Costs	Cumulative Costs	Simple Payback in years (after Rebates)
0710	Convert East Valley Mental Health SNF Water Heater	\$781	\$9,049	\$9,635,429	11.6
0707	Convert East Valley Public / Mental Health VAV	\$10,104	\$117,366	\$9,752,795	11.6
0711	Retrofit East Valley Clinic HVAC Motors	\$459	\$5,402	\$9,758,197	11.8
0101	Isolate East Wing Lobby 1st Floor HVAC	\$140,814	\$1,657,534	\$11,415,731	11.8
1324	Install Timpany Center Pool Humidity Sensor	\$5,741	\$67,529	\$11,483,260	11.8
0404	Retrofit Sheriff Department HVAC Motors	\$770	\$9,319	\$11,492,579	12.1
6185	Relamp Elmwood Programs w/ High Efficiency Lights	\$2,985	\$36,331	\$11,528,910	12.2
5100	Alterations to James Ranch Kitchen Refrigerated Storage	TBD	\$150,000	\$11,678,910	TBD
		\$1,396,671	\$11,678,910		

Note 1 FAF researched with Chevron doing Co-generation plants at the Main Jail and Elmwood. As of this date, neither project is viable.

Note 2 Currently FAF has installed these units in M4 & M5, further installations depend on evaluation of these installations.