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SEP 18 2009

Memorandum
City Manager's Office

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 09-16-09

Approved

Date

9/19/09

**SUBJECT: TRANSPORTATION AND ENVIRONMENT COMMITTEE—VERBAL
ENERGY UPDATE**

INFORMATION

The Environmental Services Department provides a verbal update on energy activities at each Council Transportation and Environment Committee. The attached documents provide a written overview of what was presented at the August 17, 2009 and the September 14, 2009 Committee meetings.

JOHN STUFFLEBEAN
Director, Environmental Services

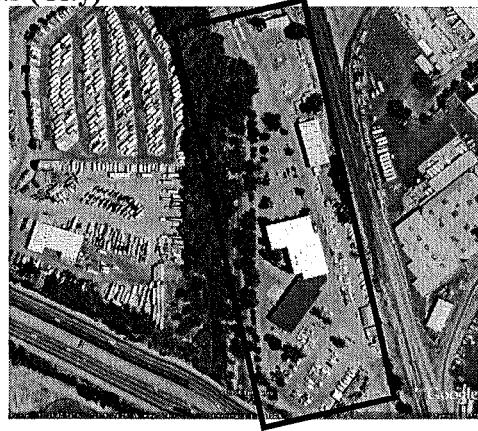
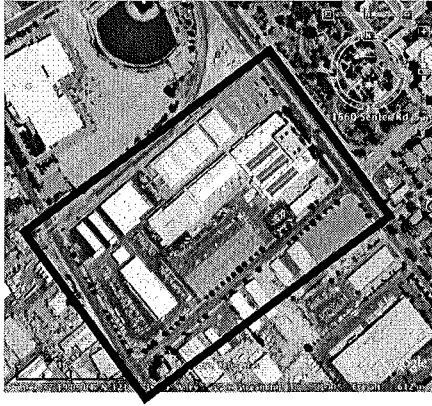
For questions please contact Mary Tucker, Energy Program Manager at (408) 975-2581.

September 14, 2009 T&E Energy Report (Verbal)

Energy Program Areas:

- City Facilities Energy Efficiency and Renewable Energy Activities
- Community Energy Efficiency and Renewable Energy Activities

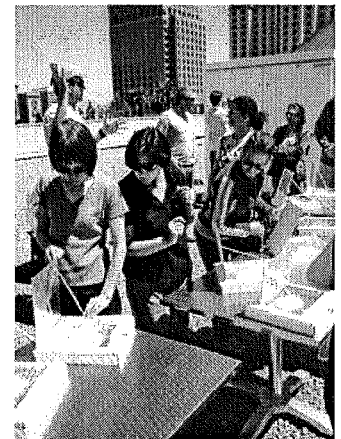
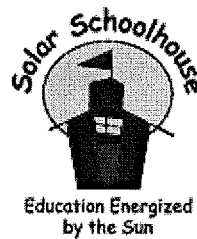
1. Mabury and Central Service Yards Solar (City)



- Released within one week (9/2/09) as per Council direction (8/25/09) proposals due September 23, 2009.
- Builds on input from solar companies regarding business terms.
- RFP adds options for use of bidder Power Purchase Agreement template.
- Estimated 1.5-2MW of power (estimated 25-88% of load depending on type of panel), equivalent to providing power for about 600 homes.
- Goal to return to Mayor and Council by December 1, 2009 with negotiated agreement.

2. Scholarships to San Jose Teachers for Solar Schools Training (Community)

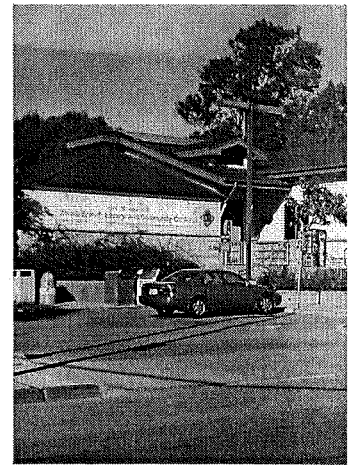
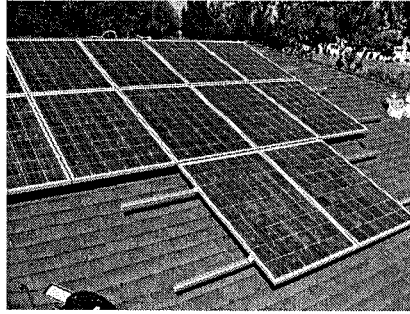
- Part of City's Solar America City grant and Coordinated with City's Go Green Schools Program.
- Providing resources to San Jose teachers on developing solar curriculum and activities for students.
- Scholarships will be for teachers to attend Solar Schools Workshop, and develop school projects.
 - \$30,000 available, scholarships range from \$500-\$5,000.
- Participants receive a variety of resources, DVDs, curriculum guides, and will build their own solar cookers from a pizza box.
- Applications due October 15th, awards announced in November.
- Planning a Solar Fair event at City Hall in Spring 2010 to highlight projects.



3. CDBG Projects Greening City Facilities (City)

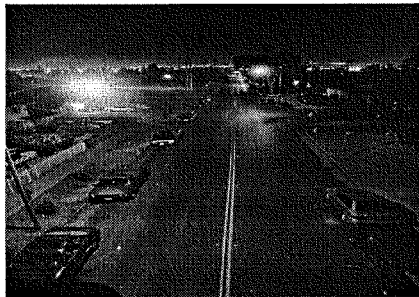
a. Energy Efficiency and Solar Projects

- Event at Alviso Library—September 19, 2009, 12-3 p.m.
- Energy Efficiency work at 10 city facilities, 6 included solar for a total of 20kW installed (equivalent to 6 homes).
- Estimated savings as result of energy efficiency and solar for all 10 facilities: \$80,000 per year, reducing CO² by 140 metric tons, comparable to 3,600 mature trees.

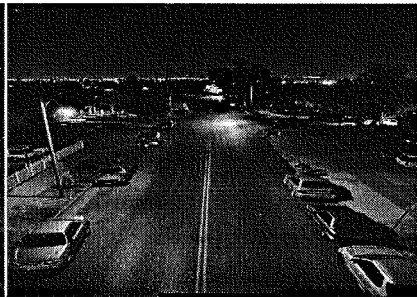


b. LED streetlights

- The first pilot project to convert existing streetlights to LED technology was completed in June 2009 in the area generally bounded by Story Road, Leeward Drive, Alfred Way and Adrian Way.
- The \$190,000 project was funded through the 2008-09 CDBG Program.
- Project included the conversion of 118 existing low pressure sodium streetlights to LED streetlights equipped with advanced communication, control and monitoring system.
- The wattage of the light was reduced more than 50 percent-- from 55 watts (90 watts including ballast) to the initial setting of 38 watts.



Low pressure Sodium



LED

4. Education and Outreach Activities (Community)

Solar Presentations in August

- Branham Rosswood Neighborhood Association
- Colonial Gardens Neighborhood

Silicon Valley Energy Watch—Upcoming Classes

Title	Date	Times	Location
Solar Careers and Business Opportunities	10/9/09	9:00 am to 4:00pm	IBEW local 332 2125 Canoas Garden Ave # 100 San Jose, CA 95125
Financial Calculations for Energy Efficiency	10/7/09	9:00am to 4:30 pm	Martin Luther King Library
Energy Auditing Techniques for Small and Medium Commercial Facilities	10/19-21/09	8:30 am to 4:30 pm each day	Pipe Trades Training Center 780 Commercial St San Jose, CA 95112-1408
Solar Water Heating Systems	11/12/09	9:00 am to 4:30 pm	Pipe Trades Training Center
Integrating EE + Renewables for Optimum ROI	11/17/09	9:00 am to 4:30 pm	Pipe Trades Training Center

AUGUST 17, 2009 T&E ENERGY REPORT (VERBAL), JUNE – AUGUST '09

Energy Program Areas:

- City Facilities—Energy Efficiency and Renewable Energy Activities
- Community Energy Efficiency and Renewable Energy Activities

City Facilities - Energy Efficiency Summary:

- 40 audits completed
- 17 energy efficiency installations (primarily lighting retrofits) complete, 8 installations in progress (including CDBG projects—Greening City facilities (10))
- \$71,832 rebate funds received since 1/2008
- \$69,000 in savings from completed projects this quarter—general fund savings
- 5.4M kWh reductions in last two years (equivalent to 400 CA homes/typical usage) (\$1.2M in energy cost savings in last two years)

City Facilities – Renewable Energy Summary

- 50 MW Solar RFI plus recommendation on Service Yards solar (initial update scheduled for Council 8/25).
- CDBG solar: ~ 30 kW on 6 facilities—Installations started 8/17/09. Organizing press event/community event for start up of Alviso library solar system-September 19th. Mayor and Councilmember Chu plan to attend.
- Other solar installations in process through CDBG funds: Fire station 1 & 16, Gardner, Alum Rock and Washington Youth Centers and Alviso Library
- Municipal Water Program putting solar at 4 pump stations (about 6 kW)

Community Energy Efficiency Activities—Silicon Valley Energy Watch/PG&E--\$10M potential for community energy efficiency funding.

- 2006-08 program extended to December 31, 2009.
- Funding focused on education. Projects include development of Silicon Valley Energy/Green Building map, offering “kill a watts” monitors through select libraries (West Valley, Alum Rock, and Evergreen)
 - Conducted energy audits for City of San Jose’s CDBG program/facilities
 - Provided direct install services to 27 San Jose small businesses, \$41K saved, \$32K in rebates provided, 52kWw saved
 - Developing fall schedule of energy efficiency/renewable educational programs
- In negotiations for 2009-11 program

Community Solar Activities—Solar America City

- California First (CSCDA): Delayed by CSCDA conducting additional due diligence in financing efforts. Anticipate returning to Council in Fall with analysis of City’s participation—roles/responsibilities, etc.
- Solar and Fire Safety Workshop: Trained 80 California firefighters from 20 jurisdictions on safety issues when attending to buildings with solar systems on the roof.¹

¹ SJFD, Milpitas, Palo Alto, Berkeley, SF, Salinas, Albany, San Joaquin County, Santa Clara, Fresno, Tracy, Contra Costa County, Sunnyvale, Fremont, Soledad, Richmond, Woodland, Vacaville, and Cal Fire

- Community Presentations on Energy Efficiency and Solar Opportunities (Solar 101): 10, reaching 300 community residents between May and August, 2009
 - Lanai Cunningham Neighborhood Association
 - Magliocco-Huff Property Owners Association
 - Five Wounds/Brookwood Terrace Neighborhood Advisory Committee
 - Hayes Neighborhood Association
 - Greater Gardner NAC
 - District 8 Community Round Table
 - Pinehurst Residents Association
 - Country Lane Neighborhood Association
 - Seven Trees Neighborhood Group
 - Cambrian Community Council
 - Little Branham Rosswood Neighborhood Association

Grants and Funding Opportunities

GRANT	DUE DATE/ POTENTIAL AWARD	FUNDING	PURPOSE/STATUS
Energy Efficiency & Conservation Block Grant	Submitted June 25, 2009. Award announcement 120 days after submittal.	\$8.8M	City facilities energy efficiency, LED streetlights, and development of solar on city facilities. Half of money anticipated in Sept/October. Interdepartmental team focusing on ensuring comprehensive audits, staff, work order development, reporting and tracking.
U. S. Department of Treasury: CREBS: Clean Renewable Energy Bonds	Submitted 8/4/09	\$1.9M	Municipal Water—Fowler Water Pumping Solar Installation, Potential 153 kW solar, annual costs savings estimated at \$47,698,
DOE Solar America City—Phase 2	July 30, 2009	\$1.2M grant of \$2.7M total program cost ²	Secured over \$600K in donations from private sector solar/clean tech companies for proposal. Project activities: <ul style="list-style-type: none"> - Provide energy financing strategies to property owners and promote these through coordinated outreach activities - Increase educational opportunities on the viability of solar (solar block parties, Clean tech demonstration center/SCU Solar House) - Increase resources and green collar workforce training - Ensure best practices in permitting and inspection of solar installations.
CEC State Energy Program	Proposals due in November 2009	TBD	Competitive grant program for AB811 type financing, residential, municipal and commercial energy efficiency retrofit programs. Regional

² Matching grant funds: Letter of commitments/donations from StablSolar, Stion, Nanosolar, Real Goods/Regrid, RDA, SCU, Mariah Power, Fat Spaniel, IBEW, Sunpower and UL. (non-matching donations from Akeena Solar, Enphase, & Applied Materials)

			coordination strongly encouraged, ESD taking lead in identifying regional proposals with SC County and Cities
DOE Local Energy Assurance Programs	Proposals due Oct. 8, 2009	\$300,000	Strengthen local government energy assurance planning, reduce the impacts from energy supply disruptions, create jobs.

Partnerships:

- Exploring a public/private demonstration of fuel cells at City Hall
- Working with PG&E on their Smart Grid/Home Area Network funding application to DOE.