

QUARTERLY ELECTRIC AND FIBER ISSUES UPDATE
June 2007

I. Update on FERC, CAISO, CPUC, Transmission, and Other Related Activities

Electric Industry Market Design in California

Market Redesign & Technology Upgrade (MRTU)

On April 20, 2007, the Federal Energy Regulatory Commission (FERC) issued its Order Granting in Part and Denying in Part Requests for Clarification and Rehearing of the September 21, 2006 Order conditionally accepting, subject to modification, the California Independent System Operator's (CAISO) MRTU Tariff filing, which is currently scheduled to become effective on January 31, 2008. FERC continues to find MRTU just and reasonable, but directs limited changes. The CAISO is continuing in its compliance efforts working towards the Jan 2008 MRTU implementation.

Throughout the process of market design, and tariff development and filing, the City has been represented by the Bay Area Municipal Transmission Group (BAMx), the Northern California Power Agency (NCPA), and the California Municipal Utilities Association (CMUA). Following issuance of the FERC Order, staff will work with BAMx and NCPA in deciding whether to seek judicial review of certain issues, examine the need for a request for rehearing of other issues, and consider filing motions to intervene to participate in certain related proceedings. Among our main issues remain: 1) the CAISO's proposal to increase the number of Load Aggregation Points (or LAP) zones when the compliance filing by the CAISO is made; 2) the issue of Resource Adequacy (Petitions for Review would be due on or before June 19, 2007), including FERC's finding that it has jurisdiction over the resource adequacy provisions of the MRTU Tariff; 3) further review of the design of marginal loss charges; and 4) intervention on the issue of physical transmission rights, since FERC will consider this issue in the Long-term Firm Transmission Rights compliance proceeding in Docket ER07-475.

Another key issue for the City, not yet resolved is the local reliability requirements. City staff will continue to participate with BAMx and NCPA in the CAISO and FERC proceedings concerned with local reliability requirements.

Resource Adequacy Requirements (RAR) and the CAISO's Interim Reliability Requirements Program (IRRP)

The CAISO's IRRP makes an exemption for load following metered subsystems (MSS), which includes the City. This interim program will be in effect until implementation of the full MRTU tariff. Under the City's current MSS Agreement, the City reports resource and load forecasts to the CAISO (via NCPA) by November 1st of each year. Prior to resolution of the load-following MSS exemption, the City Council (as the Local Regulatory Authority (LRA) for the City) formally adopted a resource adequacy program for the City's electric utility that includes a 15% planning reserve requirement. This program will eventually supplement the City's MSS Agreement to more closely match the IRRP reporting requirements and timelines, which will increase the City's reporting requirements to include monthly reporting of forecasted load and available resources. Until replacement language for the MSS Agreement has been agreed upon

with the CAISO, the City is not implementing the reporting requirement sections of the City's resource adequacy program.

Local Reliability Requirements

The CAISO issued its 2008 Local Capacity Requirements (LCR) study report in March. While the study identifies the MW requirements for the local areas, it does not address the allocation of responsibility between load serving entities. Further CAISO stakeholder proceedings are anticipated to resolve the allocation process this summer.

The City, with other NCPA Pool members, adopted a position on local reliability requirements for 2007. The NCPA MSS Pool as a whole appears balanced. Transfers occurred within the pool to compensate members who own resources in the load pockets and are recognized as providing local capacity benefits.

It is anticipated that the MRTU tariff will remove much of the flexibility for LRAs to set their own local requirements for 2008 and beyond. NCPA staff is also participating in a technical group to design the parameters for setting local requirements for 2009 and beyond that conform to regional planning and reliability standards.

Transmission and Other Related Activities

Second Point of Transmission

Exploratory efforts continue to assess the feasibility of having a second point of transmission interconnection to the City and to connect to the CAISO grid at 230 kV. Council approved a PG&E Facilities Study Plan to evaluate the feasibility of upgrading the present 115 kV transmission line from the PG&E Ravenswood substation to 230 kV. The initial feasibility assessment has been completed and two additional underground alternatives have been suggested for further study by PG&E, which would increase the study budget by \$20,000 to \$220,000.

Congestion Revenue Rights (CRRs)

A key element of MRTU is the use of CRRs as a hedge against congestion costs. NCPA has contracted with two consultants to provide software and consulting services to carry out comprehensive studies of market price scenarios and CRR strategy for members. Final results are still pending, but the studies are anticipated to be completed prior to July 2007, when NCPA and members will finalize strategy for requesting CRRs during the CAISO's annual allocation process for 2008 CRRs. This first allocation process is scheduled for August 2007. The City's Risk management policy will be amended to allow for the City's use of the CRR product.

Long-Term Transmission Rights (LTTRs)

The CAISO has persisted in the use of a 10-year CRR product to meet the LTTR requirements. Current CAISO proceedings are focusing on the determination of credit requirements for an entity that is holding long-term CRRs. Staff is coordinating with NCPA and CMUA in participating in the CAISO proceedings.

Impacts of EPCRA 2005 on COTP

The City, through NCPA, continues to post monthly, weekly and daily COTP capacity for sale on OASIS. City staff is participating in a TANC working group to address issues of OASIS operation and revenue allocation. Latest efforts include compliance with FERC Order 890, which amended the regulations and pro forma open access transmission tariff (OATT) originally adopted in Order Nos. 888 and 889.

II. Western Area Power Administration (Western) Issues & LEAP Update

Western Operations

Staff actively monitors reservoir and generator operations and makes suggestions to maximize system value. Central Valley Project (CVP) reservoir inflow is projected to be about 52% of average for water year 06-07. Reclamation reduced releases and generation to hold reservoirs to about average storage levels by April 30. Forecasted runoff (hillside storage) for April through July is projected to be 50% of average. Assuming average precipitation starting in October, generation will probably be very low in December through March in an effort to refill reservoirs after they are drawn down below average levels this summer and fall.

Calaveras Forecast

Generation from Calaveras is expected to be below average for FY 06-07, FY 07-08 and for the prompt 12-months.

CVP Corporation Activities

There have been no recent CVP Corporation activities related to Western Base Resource.

III. LEAP Update

Long Term Electric Acquisition Plan (LEAP) Implementation Update

The Ameresco Keller Canyon landfill gas project (3.0 MW, 1.5 MW share to Palo Alto) was issued an air permit on March 5, 2007, and has encountered construction delays due to an unexpectedly long lead time for some of the switchgear equipment, with an expected startup date of May 2008. The Ameresco half Moon Bay landfill gas project (11 MW, 5.5 MW share to Palo Alto) is nearing the end of the air permitting process and expects to have a permit in hand by the time this report is finalized, with an expected on-line date of January 2008. Once operational, the two NEW landfill gas projects will provide approximately 5% of CPAU annual electric energy supply.

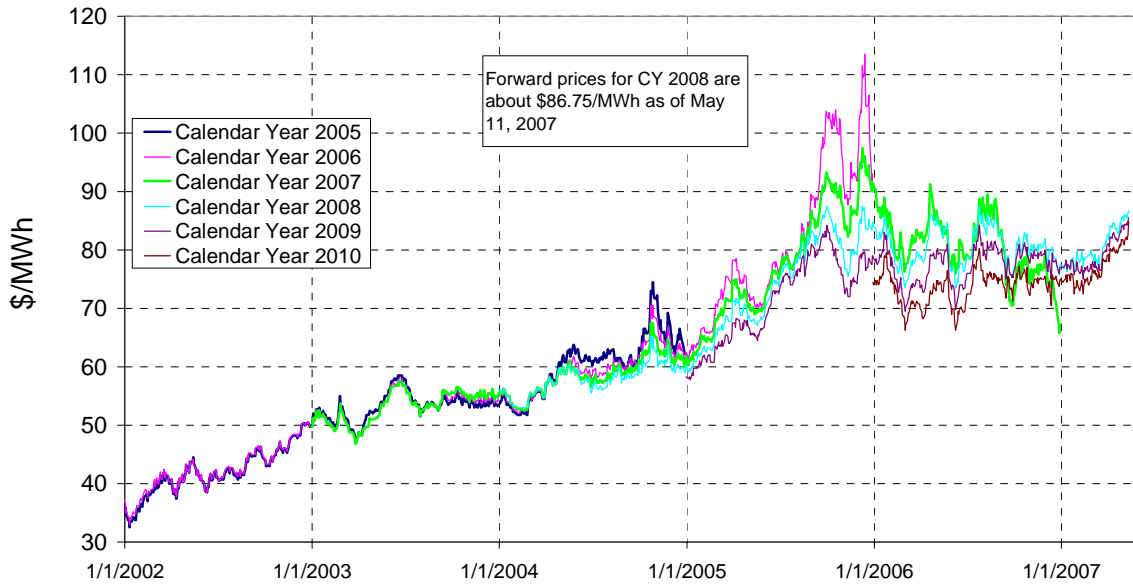
NCPA Green Power Pool Purchase Update

Palo Alto is actively assisting NCPA with the evaluation of several confidential power purchase agreement proposals made by developers of wind, biomass and landfill gas generation. Palo Alto is looking for 60-150 GWh/year of renewables including wind, biomass and landfill gas at reasonable prices and reasonable firmness of schedules with deliveries starting 2008-2010. Council approved the Ten-year Energy Efficiency Portfolio Plan (CMR:216:07), as recommended by the UAC.

Market Prices

Wholesale forward power prices have increased since the last quarterly report. The Northern California on-peak strip price for calendar year (CY) 2008 is currently trading at close to \$87 per megawatt hour (MWh), up \$13 per MWh from the CY 2007 price reported in the last quarterly report. The current price for CY 2008 is ~83% more than the average strip price for CY 2003. Figure 1 shows 2005 to 2009 calendar year strip forward prices for Northern California. Figure 2 shows historical and projected monthly forward prices for Northern California.

Forward Prices for Northern California
On-Peak Electricity*



*This “strip” product is for energy delivered on all on-peak hours for a calendar year

Figure 1

NP15 Peak Electric Prices:
Trading History and Forward Price Quotes

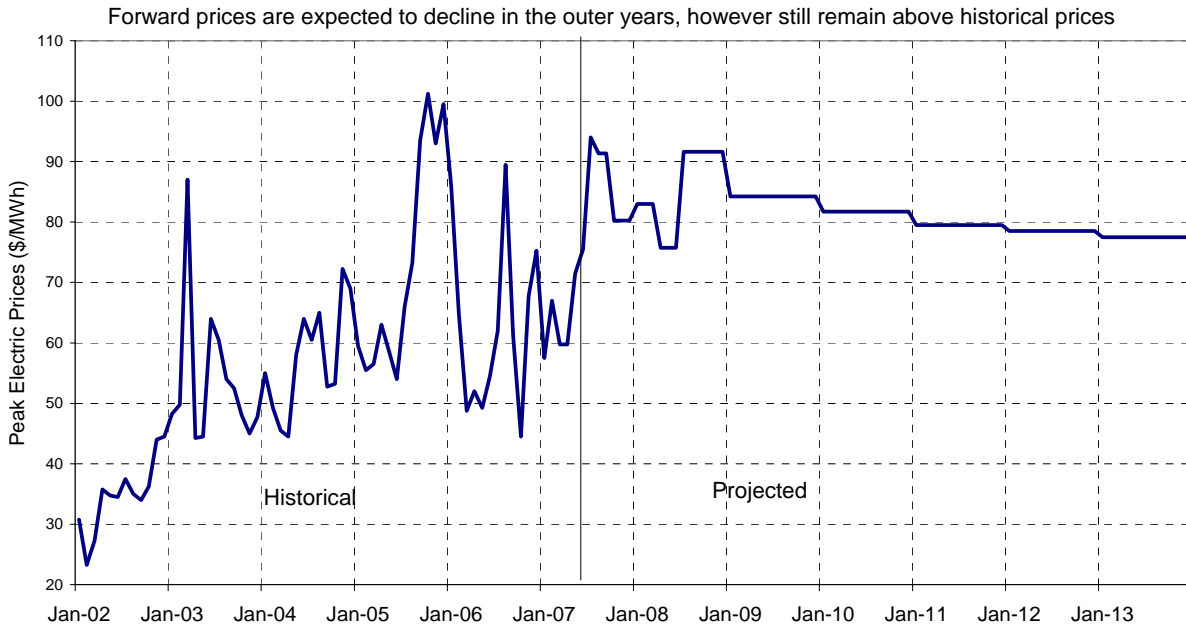


Figure 2

Load and Resource Balance

For FY 06/07, the electric supply portfolio is expected to be balanced. The first six months of the fiscal year were 13% surplus due to higher than expected hydroelectric supplies, whereas the second six months are expected to be 13% deficit due to lower than expected hydroelectric supplies from Western and Calaveras. For CY 2006, the electric supply portfolio is expected to be 34% surplus. Figure 3 below shows the annual load-resource balance for the current and next two calendar years.

Staff continues to make fixed-price energy purchases as part of the laddering strategy to manage price risk. For CYs 2007 through 2009, existing fixed price forward purchases from suppliers under the Electric Master Agreements (EMAs) make up ~690 GWh, down 92 GWh from last quarter’s report. The Quarterly Energy Risk Manager’s report to Council provides the details of all forward transactions executed.

The continued drought conditions in 2007 and resulting lower level of Western and Calaveras hydroelectric generation could increase FY 07-08 supply costs by \$10 to \$15 million above presently budgeted amounts. Staff will continue to monitor the situation and will likely request City Council add money in the budget during the mid-year budget amendment process.

Attachment C – Quarterly Electric and Fiber Issues Update

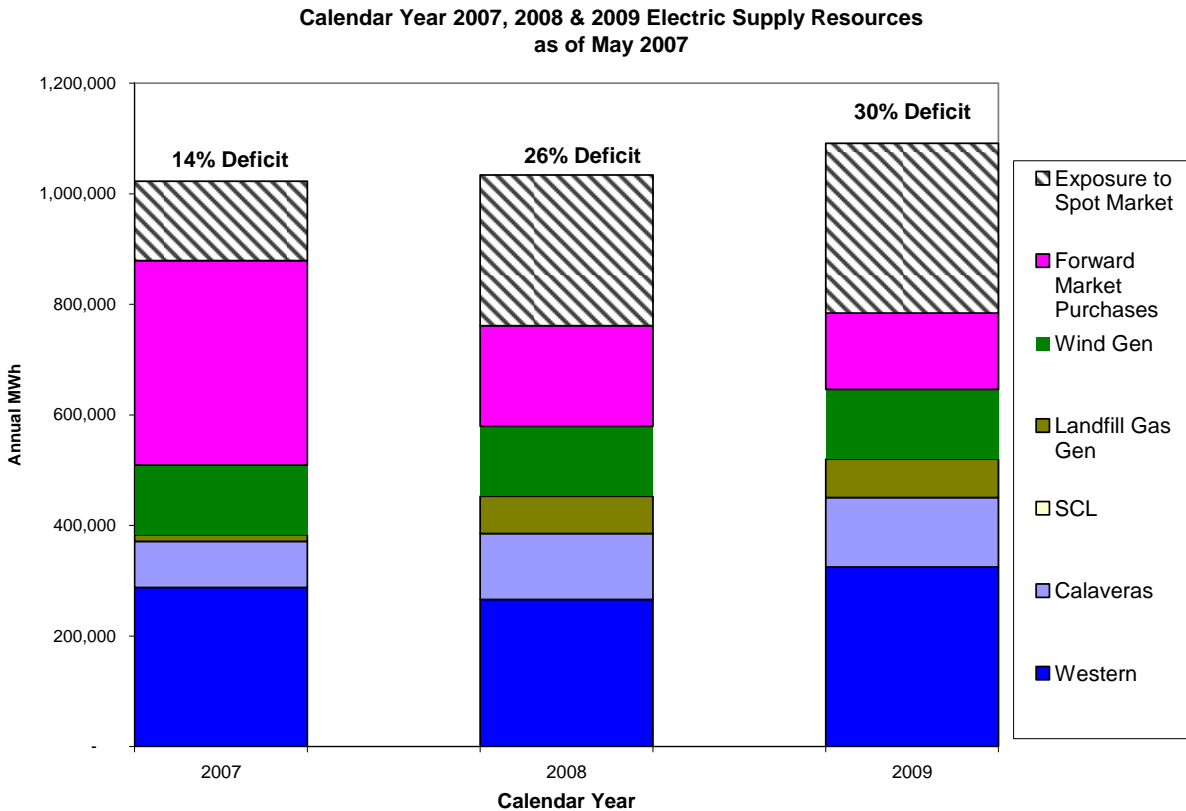


Figure 3

New Electric Suppliers

An expanded set of master agreements with suppliers was approved by Council on May 7. Our three existing suppliers (Sempra, Coral, and BP) were joined by four new successful applicants, JP Morgan Ventures, Pacific Summit Energy, Powerex, and Conoco Phillips. Increased competition may provide for more savings.

IV. Legislative/Regulatory Issues Update

PG&E-Western Dispute Related to Pre-2004 Transmission Related Cost Pass-Through

An outstanding claim by PG&E related to Grid Management Charges (GMC) remains unresolved pending an appeal that may be resolved in 2008. The size of the liability depends first on the final resolution between Western and PG&E and then on Western's decisions about how to allocate any charges.

IOU's Claim for Refunds

NCPA legal staff continues to defend against a November 2005 claim by the state's three investor-owned utilities and the California Electricity Oversight Board for damages associated with sales that NCPA and other publicly owned utilities made in the wholesale energy market during the period from May 2000 to June 2001. The current venue is U.S. District Eastern California Court (Sacramento).

State Legislative Bills and related matters

A number of environmental bills introduced in 2007. It is still early in the session but some bills of interest include:

Assembly Bill 662 (Ruskin): Addressing water conservation, this bill provides that the standards for minimum levels of operating efficiency for appliances be based on feasible and attainable efficiencies, or other feasible improved efficiencies, that will reduce the energy or water consumption growth rates and that do not result in any added total costs over the designed life of the appliances concerned. CMUA is taking a support position.

Assembly Bill 837 (Levine): This bill amends the Warren Alquist Energy Resources Conservation and Development Act which requires the State Energy Resources Conservation and Development Commission to adopt, on a biennial basis, an integrated energy policy report containing information regarding the energy markets and systems. The bill requires, as a part of the report, each entity that serves or plans to serve electricity to retail customers, to provide the Energy Commission with information related to eligible renewable resources. CMUA is taking an oppose, unless amended, position.

Assembly Bill 1470 (Huffman): This bill requires the Public Utilities Commission to establish eligibility criteria for the solar hot water systems receiving ratepayer funded incentives. The bill includes a solar thermal subsidy paid for by gas utilities (including publicly-owned gas utilities). CMUA is watching this bill at the moment, but City staff is working on amendments and could propose a support position for the City.

Senate Bill 980 (Padilla): This bill requires the State Energy Resources Conservation and Development Commission, as part of the integrated energy policy report, to evaluate the adequacy of the electrical system of each local publicly owned electric utility in the state pursuant to specified requirements. CMUA is taking an oppose position.

The following bills were signed into law in 2006:

AB 32 (Pavley): Implementation of the California Global Warming Solutions Act of 2006 is being championed by the California Air Resources Board (CARB). CARB is forming two main subcommittees: the Economic and Technology Advancement Advisory Committee and the Global Warming Environmental Justice Advisory Committee. The projected timeline for implementing AB32 are as follows:

- By July 1, 2007 The State Air Resources Board (ARB) forms Environmental Justice and Economic & Technology Advancement advisory committees.
- By July 1, 2007 ARB adopts list of discrete early action measures that can be adopted and implemented before January 1, 2010.
- By Jan 1, 2008 ARB adopts regulations for mandatory greenhouse gas (GHG) emissions reporting. ARB defines 1990 emissions baseline for California (including emissions from imported power) and adopts that as the 2020 statewide cap.

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- By Jan 1, 2009 ARB adopts plan indicating how emission reductions will be achieved from significant sources of GHGs via regulations, market mechanisms and other actions.
- During 2009 ARB staff drafts rule language to implement its plan and holds a series of public workshop on each measure (including market mechanisms).
- By Jan 1, 2010 Early action measures take effect.
- During 2010 ARB conducts series of rulemakings, after workshops and public hearings, to adopt GHG regulations including rules governing market mechanisms.
- By Jan 1, 2011 ARB completes major rulemakings for reducing GHGs including market mechanisms. ARB may revise the rules and adopt new ones after 1/1/2011 in furtherance of the 2020 cap.
- By Jan 1, 2012 GHG rules and market mechanisms adopted by ARB take effect and are legally enforceable.
- Dec 31, 2020 Deadline for achieving 2020 GHG emissions cap.

SB 1368 (Perata): The Energy Commission will adopt regulations for the enforcement of the greenhouse gases emission performance standard with respect to a local publicly owned electric utility. The CMUA working group continues to work with the Energy Commission in the design of the regulations.

Federal Bills

Both the House and Senate are focused on climate change legislation this year. Early in May 2007, the Senate Energy Committee approved a package of energy measures that are described as a “down payment” on national energy security and climate change. Included in the legislation are provisions to:

- boost energy efficiency standards for buildings and appliances;
- impose an obligation on the federal government to acquire a certain percentage of its energy from renewable resources;
- expand the production requirement for use of ethanol and other biofuels; and
- increase research on geologic carbon sequestration and establish a number of demonstration sites.

Legislation to stabilize the payments made by power and water customers for security costs at federal hydroelectric facilities, 15% rate applied to all other Safety of Dams costs, has now been introduced in the U.S. Senate by Senator Maria Cantwell (D-WA). Senator Cantwell’s bill (S. 1258) is similar to H.R. 1662, previously introduced in the U.S. House of Representatives by California Congresswoman Grace Napolitano (D-Norwalk), Congresswoman Cathy Mc-Morris Rogers (R-WA), and others. The new bill enjoys bipartisan support in the Senate.

V. Commercial Fiber Optic Services

New fiber rates were approved in September of 2006. Recurring license fees on rate schedule EDF-1 were raised 3.19%. This was a combined two year CPI increase. We are planning on raising the EDF-1 rate schedule by the CPI rate again this July. City of Palo Alto projects are now billed at the revised Public Agency rate.

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The revised and streamlined Master License Agreement contract is now complete and reduced from 54 pages to 15 pages. Staff is identifying customers that can benefit financially from the EDF-3 rate schedule. In order to take advantage of the savings, these customers must sign the new contract.

A six building project has been built for Space Systems Loral connecting their buildings in the Fabian Way area. Loral is one of many companies that rely on Commercial Fiber Services to connect their outlying buildings to create a virtual campus. VM Ware has also connected its new headquarters on Hillview Avenue to its existing five buildings spread out across Palo Alto.

Commercial Fiber Optics is planning extensively for the relocation of fiber due to the pending removal of the Alma Substation. Engineering and operations details are being finalized. The relocation of Fiber is expected by Q2 2008. A customer impact plan will be created to minimize downtime for our customers.

Cross training efforts continue within Utilities Marketing Services (UMS). Three more staff members have attended extensive Fiber training and are attending engineering, marketing and field meetings. The existing fiber representative is including UMS staff in all aspects of the fiber business. Fiber administrative functions have transferred to UMS administrative staff and fiber billing and back office tasks have been moved to the billing group.

VI. Electric Public Benefits Program

Renewable Programs

CA Senate Bill 1, signed 8/21/06, requires all publicly-owned utilities to offer specified minimum incentives for PV systems, on or before January 1, 2008, for a ten year period. This mandate also prevents public utilities from taking funds previously used for energy efficiency and low income programs to meet the customer demand for solar incentives. Funding to meet CPAU's share of the total California PV installation goal is projected to be \$13 million, averaging \$1.3 million per year for ten years, which is included in the proposed budget. Working with SMUD, staff helped to develop a report for the CEC to show each Publicly Owned Utility's proposed solar program design to meet the SB1 requirements.

PV Partners: The City PV Demonstration project construction contract was awarded in December 2006 (CMR:455:060), and is under construction, which should be completed by the Fall 2007 for the three sites (Baylands, MSC and Cubberley). ASD and Utilities staff are working together to issue \$1.5 million in special tax credit Clean Renewable Energy Bonds (CREBs) to finance the City's portion of the project cost at zero interest (CMR:240:06, CMR:102:07), which are expected to reduce the project net cost to the City by approximately \$450,000.

PaloAltoGreen was once again ranked the #1 program in the nation by the National Renewable Energy Laboratory (NREL) in customer participation. The participation rate is currently at 17.06%, working toward goal of 20% by end of the year.

Residential and Commercial Efficiency Programs

Residential Energy Assistance Program (REAP) received the 2007 Community Service/Resource Efficiency Award for a small utility from the California Municipal Utilities Association. This low income efficiency program has currently assisted 80 residents.

LED Holiday Light Program was very successful offering an in store rebate at the local hardware stores during the month of December, 2006. The stores distributed over 1,400 boxes of LED Holiday lights with energy savings estimated at 37,032 kWh.

New Refrigerator Recycling Program insures the proper recycling of over 90% of the refrigerator components and properly disposes of all the oils and refrigerants. The majority of the 128 refrigerators removed have been secondary home refrigerators. This program is also part of the EPA's Responsible Appliance Disposal (RAD) program in which the EPA is partnering with utilities to reap environmental benefits through responsible appliance disposal.

New Construction: Utilities staff is participating in a multi-departmental Green Building Team. The group is looking into the various options to promote green residential and commercial buildings in Palo Alto. UMS provided partial funding & assistance for Green Building information kiosk in the Development Center. Virginia Waik successfully completed training and is now a Certified Green Building Professional.

Key and Major Accounts

Ground Source Heat Pump at Children's Library

Utilities funding for technical support and public educational material has been provided for the first ever City owned ground source heat pump system (GSHPS). GSHP systems use the ground temperature to provide much of the needed heating and cooling base for sites with expected efficiencies well above a conventional system. An educational banner is now posted on the construction site fence for public viewing.

Retrocommissioning (RCx)

UMS has embarked on efforts to capture additional savings from our local buildings through educational and CARE audits focused on retrocommissioning (RCx) processes. RCx is essentially a building "tune up" process to optimize tenant comfort and efficiency. The objective is to produce a permanent improvement in the construction and on-going operations and management of buildings and to decrease the owner's share of operating expenses. Present activities and projects include:

- UMS hosted a RCx 101 class given to the local Facilities Management Network (attendees from various companies (CPA, HP, VM Ware, Roche, Varian, Agilent, CV Therapeutics, SAP)
- Integration of RCx deliverables for City Hall mechanical system design and installation. RCx is intended to reduce change orders and improve installed quality and serviceability of energy use equipment.
- Completed RCx Systems Manuals for both City and Palo Alto Unified School District (PAUSD) sites (Cubberley, Greendell). RCx Systems Manuals are similar to "cliff notes" for each building highlighting mechanical electrical, and water systems.

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- Completed full site-by-site utilities benchmarking of PAUSD facilities which has been integrated into the facilities master plan. Building benchmarking can be compared to a car's mpg rating. It is a means to compare building performance and raise awareness on efficiency potentials. The PAUSD Facility Master Plan, completed in April 2007 can be found at: <http://pausd.org/community/about/news/downloads/FacilitiesMasterPlan.pdf>.