

PACIFIC CURRENTS

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Energy Tips 4-Page PULL-OUT!

Where To Find Our Previous Pacific Current Issues

The San Francisco HUB publishes Pacific Currents quarterly. While we try to furnish our 4,000+ subscribers with a print copy, sometimes we are only able to post the newsletter on our website due to insufficient printing funds. Look for our latest issue here:

<http://www.hud.gov/local/ca/working/localpo/mfhsgnews.cfm>

ENERGY CONSERVATION

- SPECIAL EDITION -

October is National Energy Month!

During October the Department of Energy, HUD, and Environment Protection Agency will launch the annual "ENERGY STAR Change a Light, Change the World Campaign" and declare October 4, 2006, "ENERGY STAR Change a Light Day."

The objective of Energy Month and the Change a Light Campaign is to promote energy efficiency and conservation, reduce residential energy costs and protect the environment. The campaign lets Americans pledge to replace one bulb or fixture in their home with a bulb or fixture that has earned the ENERGY STAR label.

As part of this effort, this issue of Pacific Currents features a number of articles that focus on energy related issues in multifamily housing. These range from bulk purchasing of ENERGY STAR products and lighting retrofits to Energy Audits for multifamily properties. Wayne Waite, the Regional Energy Coordinator for the San Francisco Multifamily Hub, was instrumental in providing the information contained in this newsletter. In fact, we have too many articles for this issue alone, and will be providing additional energy related information in future editions of Pacific Currents.

HUD, multifamily property owners, management companies, and residents all have an important role in promoting, implementing, and achieving energy efficiency and conservation. We hope the information provided is useful and that each of us will make a personal commitment to "change a light bulb" and make energy efficiency and conservation an everyday practice.

Trick or Treat!



Happy Autumn
San Francisco Multifamily
Hub



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Contributed by Jeri Henson

Hub Lines . . .

I urge you to give some attention to climbing outside your box from time to time.

~ Thomas Kinkade

You learn faith by acting in faith.

~ Thomas Kinkade

Begin your quest for romance by activity and unashamedly romancing your life!

~ Thomas Kinkade



The next issue of *Pacific Currents* will be devoted to highlighting the "Best Practices" submitted by our industry partners. Over the years, we have all probably seen examples of outstanding and creative accomplishments achieved by management companies and site staff to correct problems, improve conditions, and literally turn properties around to assure they are truly inviting home environments for the individuals and families who reside in the 1500 HUD insured / assisted communities in our Hub jurisdiction. We want to highlight and share these success stories.

The San Francisco Multifamily Hub invites our industry partners, management companies, and site staff to submit what they consider BEST PRACTICES that they want to share. The BEST PRACTICES can be anything related to the operations of a multifamily property, including physical, security, management practice, resident service, etc.

The submission should:

- Identify the existing problem or condition
- Identify the BEST PRACTICE used to address the problem or condition
- Identify the beneficial impact of the BEST PRACTICE
- Identify a contact person if the submitter would like to provide additional information if contacted by interested readers.

The submission should not exceed 400 words, and digital photos can be included. Please e-mail your BEST PRACTICE submissions to Christine_J._Day@hud.gov and J._Patrick_Goray@hud.gov by November 15, 2006. Please note "BEST PRACTICE" on the subject line.

MF HUD - Northern California ListServ

The San Francisco Multifamily Hub wants to make sure that we can quickly share program information with owners and property management companies in our jurisdiction. To complete our electronic automated communication network, we have created a northern California management company listserv which will enable us to communicate with property management companies operating in the jurisdiction of the San Francisco and Sacramento HUD offices. Offices in Phoenix, Las Vegas and Honolulu currently have such a system.

To participate in our listserv internet mailing list program, we request owners/agents working with HUD insured/assisted properties in northern California to add their company's email address to this listserv. It's easy; just follow these five simple steps:

1. Sign on the Internet and open HUD's homepage www.hud.gov.
2. Go to bottom of that page, look for Tools in the left-hand sidebar, and click on mailing Lists.
3. On the HUD Mailing Lists page, click on California under State Mailing Lists.
4. On the next page find and click on Northern California HUD Multifamily Management Companies.
5. On the Mailing List Sign-Up page, enter your company's email address and then click on Ok. That's all there is to it!

Promoting Energy Efficiency In HUD Assisted Properties

Each year HUD expends over \$4 billion on energy expenses. These costs currently represent over 10 percent of HUD's annual budget and appropriations, and projected increases in utility costs will put additional stress on an already constrained Federal budget.

To stem rising energy costs, the San Francisco Multifamily Hub is undertaking an important partnership to facilitate energy efficiency improvements and reduce energy consumption in HUD-subsidized properties.

This article provides an overview of some of the key components and operational details of HUD's Multifamily Energy Efficiency Pilot initiative.

HUD Multifamily Energy Efficiency Pilot Initiative

The objective of the Multifamily Energy Efficiency Initiative is to provide energy audit and technical assistance to subsidized multifamily properties through partnerships with energy efficiency program providers to invest in cost effective energy efficiency measures in conjunction with ongoing FHA transactions.

Investments in energy efficiency improvements as part of planned refinancing transactions can significantly lower operating costs. Such improvements can also improve indoor environmental quality and increase resident comfort and affordability and, potentially, the viability and marketability of the project, which are important aspects that are examined in refinancing deals.

The pilot program began in June 2006 and initially target the FHA transactions involving: (i) requests for long-term Section 8 contract renewal and project refinancing; or (ii) refinancing requests from Section 202 project sponsors. HUD anticipates that up to 40 transactions with candidate projects will be processed annually. Other HUD subsidized projects can be considered on a case-by-base basis.

Long-Term Section 8 Contract Renewals. The long-term renewal of housing assistance contracts and utility assistance payments represents a 20-year resource commitment by HUD.



Americans spend more than \$160 billion a year to heat, cool, light and live in their homes. By taking advantage of home energy efficiencies, an average American family could save \$150 a year.

To encourage energy efficiency and reduce energy consumption in HUD subsidized buildings over this investment period, project sponsors requesting long-term renewal of Section 8 housing assisting contracts are requested to undertake a project energy audit and incorporate cost-effective energy efficiency measures in the project refinancing and project reserve for replacement plans.

"For most owners and renters, utility bills are the 2nd largest household expense. By reducing the price of utility bills, we reduce the cost of living for the nation's low-and moderate-income families." HUD Secretary Alphonso Jackson.



Section 202 Refinancing. Many projects developed under HUD's 202 program were constructed between 20 and 30 years ago with up to 40 year fixed rate mortgages carrying steep interest rates. These projects are now experiencing maturing building systems and physical dilapidation at the same time that their resident population is aging and in need of services not originally provided as part of an independent living facility. These properties are also increasing in value due to steep increases in the value of land. FHA preservation efforts permit properties to refinance 202 mortgages using FHA mortgage insurance. Energy audits will be made available to project sponsors to assist in identifying cost effective energy efficiency improvements that can be reasonably included in refinancing plans with improvements called for in Physical Condition and Needs Assessments.

HUD believes that these transactions have the necessary financing capacity and contract administration processes in place to accomplish energy retrofits capable of reducing energy consumption by 20 percent or more.

Operational Details of the San Francisco Multifamily Hub (SFMFH) Energy Efficiency Pilot Program

Step 1: Project Selection. In conjunction with the Office of Multifamily Housing's Pre-application Review Process HUD will make an initial desk assessment of targeted multifamily projects to determine whether they are appropriate candidates for the pilot program. The assessment should consider:

Whether the project completed an energy audit in the last 3 years and if so whether the recommended improvements were included in the project's capital plan

Promoting Energy Efficiency In HUD Assisted Properties (Continued)

General property conditions, inclusive of building age, and whether appliances and heating and cooling systems have been replaced in the last 7 years

Project energy and water costs, including those paid by tenants, relative to other multifamily projects and whether the project has requested budget adjustments due to rising utility rates

Whether the project sponsor is interested in incorporating energy efficiency measures as part of requested or pending FHA refinancing transactions



Interested in a new washing machine?

EPA Energy Star Site:
<http://www.energystar.gov>

Step 2: Audit Referral. HUD is partnering with the Pacific Gas and Electric Company (PGE) and other energy efficiency program providers to effect investments in energy efficiency measures by facilitating energy assessments of HUD assisted projects during 2006. During 2006, PGE agreed to provide up to 20 free energy audits for projects selected by HUD. Similar commitments have been discussed with LADWP, Nevada Power, the Arizona Energy Office, and energy service providers funded from State public good funds.

Once a project is determined to be an appropriate candidate for the energy efficiency pilot, the project sponsor will receive contact information for energy audit providers participating in this initiative. Project sponsors may request and schedule an energy audit with a participating energy audit provider or alternatively may elect to contract for their own energy auditing services.

Step 3: Audit Scheduling. Project sponsors are responsible for making arrangements with the energy audit providers to schedule the audit.

Step 4: Energy Efficiency Recommendations. Energy audit providers will provide the project sponsor and HUD with a copy of the energy audit.

Additional technical support may be available to project sponsors from energy efficiency program providers to assist in developing project energy efficiency investment strategies and plans, providing specifications for energy efficiency

products and equipment, and identifying energy rebates and incentives. During 2006 HUD is working with the Heshong Mahone Group, Navigant Consulting, and Strategic Energy Innovations to assist housing sponsors in accessing energy efficiency services and financial incentives.

Step 5: Linking Energy To Project Plans. AEC reviews on all projects now recommend the use of energy saving devices and measures including Energy Star standards and appliances. Owners are asked to explore energy saving devices and methods in their final plans and specifications. The prioritized list of energy efficiency measures provided by the energy audit will be a useful tool for AEC reviewers to conduct effective and systematic reviews of energy improvements.

Project sponsors are asked to include cost effective energy efficiency measures in the project's refinancing plan along with improvements identified in the Physical Condition and Needs Assessment. Energy efficiency measures not funded through refinancing should be addressed in project operations and Reserve for Replacement Schedules.

"Last year, through ENERGY STAR, Americans chose to invest in cleaner air and healthier lives - saving enough energy to power 18 million homes and cutting \$ 10 billion from their energy bills."
EPA Administrator Stephen Johnson



Recommended Energy Investment Criteria

What Energy Investments To Include In Capital Plans. The goal of the SFMFH Energy Efficiency Pilot program is to produce economic savings for the project sponsor and assisted households through cost-effective energy efficiency investments.

Typically an energy investment plan is created after an energy audit identifies areas for potential improvement. A project's investment strategy should reflect the financial criteria that the sponsor's organization usually applies to capital expenditures.

Depending on the improvements recommended by the energy audit, energy investments can be made through operations, replacement reserves, or financing transactions. For this initiative, HUD requests project sponsors seeking long-term renewal of Section 8 housing assisting contracts to include cost-effective energy investments with payback periods of 5 year or less as part of project's

refinancing transactions or alternatively in conjunction with project operating or reserve for replacement plans. Energy Audits will list cost effective energy efficiency measures by payback period, which takes into account estimated reductions to energy consumption, the added cost of energy efficiency improvements, and energy rates.



HUD Energy Information:

<http://www.hud.gov/energy>

Frequently, short payback measures can be combined with longer payback measures (10 years or more) in order to increase the number of measures that can be cost-effectively included in a project. Projects that combine short- and long-term paybacks are recommended to avoid “cream-skimming” (implementing only those measures that are highly cost effective and have quick paybacks) at the expense of other worthwhile measures.

Cost effective measures with longer payback periods should also be included in the investment plan if the existing equipment is nearing the end of its useful life or the equipment has had a catastrophic failure. In such cases, the equipment will require a web-based tool to simplify the process for obtaining ENERGY STAR product price information and, if desired, initiating purchases of ENERGY STAR products.

Reserve for Replacement Plan - Energy Efficiency Schedule. Measures not included in project refinancing plan should be addressed as part of project operations or included in the project's 10-year Reserves for Replacement plan, unless the measures are not cost effective. Accordingly, the reserve analysis should reflect identified energy efficiency needs.

The Energy Efficiency Schedule should be presented independently from other reserve schedules for ease of tracking. The Energy Efficiency schedule should be reviewed every 5 years to ensure that investments in energy efficiency measures are made on schedule and the properties continue to make cost effective operational improvements to lower project and household energy consumption. Minimally, this may require energy walk-through assessments, which can be performed by site managers.

Other Factors Influencing Energy Investment Decision. Some factors related to building heating, air conditioning, and lighting system design are not considered as part of typical energy audits. Examples include avoided costs, such as reductions in

maintenance costs resulting from replacing existing equipment with more reliable, durable, and energy efficient equipment. Additionally, intangible benefits such as the comfort of residents and ancillary societal benefits (e.g., reduced carbon emissions, improved indoor air quality) can result from reduced energy use. Project sponsors may include avoided costs and other benefits in the analysis if such costs and benefits can be properly documented.

For a simple set of instructions on how to use the ENERGY STAR Bulk Purchasing Tool send an email request to Wayne Waite, Regional Energy Representative, at:

Wayne_W._Waite@HUD.GOV



Asset Management Announces
upcoming dates for

Quarterly Industry Meetings



October 19, 2006

January 18, 2007

April 19, 2007

July 19, 2007

Location:
U.S. Department of Housing
600 Harrison Street, 3rd Floor
San Francisco, CA 94137



ENERGY STAR ONLINE BULK PURCHASING INITIATIVE

In 2005, ENERGY STAR® saved 150 billion kilowatt hours (kWh), or 4 percent of total 2005 electricity demand and about \$12 billion on utility bills. In addition, ENERGY STAR helped avoid 28,000 megawatts (MW) of peak power, equivalent to the generation capacity of more than 50 new power plants.

ENERGY STAR has become the trusted national symbol for energy efficiency. ENERGY STAR labeled products must meet strict energy efficiency criteria set by the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA). Because they use less energy, these products reduce energy costs and help protect the environment by causing fewer harmful emissions from power plants.

EPA reports that by using ENERGY STAR labeled products, households can reduce their energy use and save up to 30 percent, or \$450 annually on average, on their utility bills (currently averaging around \$1,500 per year).

ENERGY STAR qualified products have been widely used in market rate housing but because of cost considerations the purchase of ENERGY STAR products have not been fully incorporated into affordable housing developments and property management strategies.

In recent years, the cost differential between ENERGY STAR labeled appliances and less energy efficient appliances has significantly decreased. The simple payback period or time needed to recoup the added cost for ENERGY STAR appliances from energy savings is now less than 5 years for most products. And because these products are more reliable and durable than other appliances, from a life cycle perspective the purchase of ENERGY STAR products can be very cost effective and increase in value as energy and labor costs increase.

ENERGY STAR Bulk Purchasing. To mitigate remaining costs differences and assist affordable housing sponsors gain access to the widest possible range of ENERGY STAR products, DOE and the U.S. Department of Housing and Urban Development (HUD) have collaborated on the development of a web-based tool to simplify the process for

obtaining ENERGY STAR product price information and, if desired, initiating purchases of ENERGY STAR products.

The ENERGY STAR Bulk Purchasing Tool provides affordable housing sponsors with on-line access to manufacturers and suppliers of ENERGY STAR products. The manufacturers and suppliers participating in this initiative recognize the potential market for ENERGY STAR within the affordable housing sector and pursuant to agreements with DOE, participating manufacturers and suppliers of ENERGY STAR products have agreed to offer bulk purchase pricing. Moreover, because the number of participating manufacturers and suppliers of ENERGY STAR products is not restricted, the quotes provided will be competitive.

In short, the ENERGY STAR Bulk Purchasing Tool offers public housing authorities, affordable housing sponsors, and other public and community-based organizations with a one-stop site to access a broad possible menu of ENERGY STAR products and equipment at competitive bulk purchase pricing. Use of the web-based on-line program does not require special software; only access to the internet.

The ENERGY STAR Bulk Purchasing Tool is accessible at:
www.bulkpurchase.net

The website is user-friendly and easy to navigate.

Overview of the Online Bulk Purchase Process

- Purchasers choose an ENERGY STAR product type.
- Purchasers complete and submit the product-specific questionnaire.
- Participating ENERGY STAR partner suppliers will be notified via email.
- Suppliers will have the opportunity to respond to Purchaser requests.
- Purchasers are notified via email when a partner responds to a request. All subsequent responses will be posted on this web site without email notification. All dialogues are confidential.
- Purchasers log into this Website and check Supplier responses.
- Purchasers decide whether or not to follow up with any of the ENERGY STAR Supplier responses.

For a simple set of instructions on how to use the ENERGY STAR Bulk Purchasing Tool send an email request to Wayne Waite, Regional Energy Representative, at Wayne_W._Waite@hud.gov.

A Look At The Efficiency of ENERGY STAR Products

- ✓ ENERGY STAR qualified refrigerator models use at least 15% less energy than required by current federal standards and 40% less energy than the conventional models sold in 2001.
- ✓ ENERGY STAR compact fluorescent bulbs use 70% less energy than "old-fashioned" incandescent bulbs and they often last 10 times longer. If you replace an existing 60-watt incandescent bulb with a 15-watt compact fluorescent, you will save \$33 in energy costs for just that bulb over its lifetime.
- ✓ ENERGY STAR rated clothes washers use 50% less energy than conventional washers. They also use less water per load and one-third less detergent. Compared to a model manufactured before 1994, an ENERGY STAR qualified clothes washer can save up to \$110 per year on your utility bills.
- ✓ ENERGY STAR qualified central air conditioners have a higher seasonal efficiency rating (SEER) than standard models, which makes them about 25% more efficient and will reduce cooling bills by 20%.
- ✓ ENERGY STAR qualified furnaces have an annual fuel utilization efficiency (AFUE) rating of 90% or greater, making them about 15% more efficient than standard models.

ENERGY STAR Lighting Retrofits:

Simple Ways To Reduce Reoccurring Energy Costs

How many kilowatts does it take to change a light bulb?

These days, with all of the news about photo voltaics, fuel cells, and renewable energy, we can sometimes forget that there are many simple and proven approaches to reduce energy consumption and reduce operating costs.

To prove the point, the University of Hawaii (UH) Center for Smart Building and Community Design, Sea Grant College Program, with support from the State of Hawaii's Department of Business, Economic Development, and Tourism, evaluated the potential benefits of replacing conventional incandescent light bulbs with high efficiency compact fluorescent lights and fixtures in affordable multifamily apartments.

The evaluation, completed in 2006, examined lighting requirements and the estimated comparative lighting costs at the Kalani Garden Apartments, a 119 unit affordable housing project on Oahu. The benchmarking study revealed that simple lighting changes could reduce annual electric energy consumption at Kalani Garden by 109,877 kWh and lower project and household energy costs by \$21,426.

To complete the evaluation, the UH Center for Smart Building and Community Design energy team,

lead by Center Director Stephen Meder and students Sharon Ching Williams, Mariko Davidson, and Sarah Goorskey, conducted detailed assessments of kitchen, bathroom, living room, hallways and bedrooms lighting usage. An inventory of the number of lights and estimates of the number of hours each light is typically in use was determined to provide a reasonable benchmark for calculating property and unit electric loads associated with lighting.

The table below summarizes the comparative lighting energy use, cost, and savings by room type.

Table 1: Kalani Garden Comparative Lighting Energy Use and Costs

	Conventional Lighting Usage (KWh/Yr)	Benchmark Cost	Energy Star Lighting Usage (KWh/Yr)	Energy Star Cost	Energy Savings (KWh/Yr)	Energy Savings (\$)
Kitchen	268	\$52.26	57	\$11.12	211	\$41.15
Living Room	262	\$51.09	57	\$11.12	205	\$39.98
Hallway	88	\$17.16	19	\$3.71	69	\$13.46
Exterior	131	\$25.55	28.5	\$5.56	102.5	\$19.99
Bathroom	131	\$25.55	28	\$5.46	103	\$20.09
Bedroom	131	\$25.55	28	\$5.46	103	\$20.09

Source: University of Hawaii, Center for Smart Building and Community Design, Sea Grant College Program

For multifamily lighting retrofit projects such as the one envisioned for the Kalani Garden Apartments, the payback period to recoup the initial investment of replacing incandescent lighting with Compact Fluorescent Bulbs and changing out fixtures with T-8 and electronic ballasts, is typically less than 2 years. Moreover, because energy savings accrue over the useful life of the product with little or no maintenance requirements, energy efficiency lighting retrofits can yield an annual *Rate of Return on Investments* of over 40% percent.¹

For the Kalani Garden Apartment, the identified energy efficiency lighting retrofits would generate an estimated return on investment exceeding \$180 per unit per year, which could easily exceed \$125,000 over the useful life of the lighting measures. A breakdown of estimated energy savings for typical two- and three-bedroom apartments at Kalani are shown below.

Table 2: Kalani Garden Apartments - Unit Lighting Savings

	Per Unit Energy Consumption Savings (KWh/Yr)	Aggregate Consumption Savings (KWh/Yr)	Per Unit Estimated Energy Cost Savings/Yr	Aggregate Estimated Energy Cost Savings/Yr
Two-Bedroom Units	896.5	78,892	\$174.82	\$15,384
Three-Bedroom Units	999.5	30,985	\$194.90	\$6,042

TOTAL UNITS	109,877 kWh	\$21,426 per year
Source: University of Hawaii, Center for Smart Building and Community Design, Sea Grant College Program		

¹ HOME ENERGY SAVER website maintained by the Lawrence Berkeley National Laboratories includes a report on the Profitability of Energy Efficiency Upgrades showing the rates of return for 10 energy efficiency measures. http://hes.lbl.gov/hes/profitable_dat.html

Conclusion.

Energy retrofits that reduce base residential electric demand are essential to maintaining the long-term housing affordability. The evaluation presents a compelling case that relatively simple changes can have a profound affect on the bottom line, whether or not the energy costs are paid by the household or property sponsor.

American households spend more than \$20 billion dollars a year to light their homes.

ENERGY STAR qualified lighting requires 2/3 less energy than standard lighting, generates 70% less heat, and lasts up to 10 times longer.

ENERGY STAR qualified fixtures are available in hundreds of popular styles, including portable fixtures—such as table, desk, floor and torchiere lamps—and hard-wired fixtures such as outdoor, cabinet, suspended, ceiling-mount, recessed, wall-mount, and ceiling fans.



Managing a Building for Maximum Energy Efficiency

By Clare Bressani Tanko,
Bay Area Local Initiatives
Support Corporation (LISC)

Today there is considerable turmoil and uncertainty in energy markets. Rising commodity prices can be expected to contribute to higher heating and cooling costs. To keep ahead of rising energy costs, the Local Initiatives Support Corporation offers some suggestions based on its work with housing sponsors for maximizing your property's energy efficiency through the following proactive approach.

Know What You're Consuming. Before you rush into anything, start by figuring out where your property currently stands. How high are your energy bills? How much energy does your property consume? Are your systems old and inefficient? These are questions you need answers to in order to create a baseline or starting point.

How do you get answers to these questions? Start by looking at your bills. Check to see if your costs have fluctuated over the past few years (you need to look at two or more years' worth of bills to get a good history). Next, involve your maintenance staff. Ask them to eyeball certain systems during routine walk-throughs (such as confirming that pipe insulation exists on the hot water systems) and keep maintenance logs on larger systems, such as boilers, to ascertain how efficiently they are currently operating.

If you're suspicious that you might need to update some equipment, seek help from a professional through an energy audit. These are simple reports that analyze your property's major systems (heating, lighting, air conditioning, ventilation, and hot water) and provide recommendations, as well as estimated costs and savings, for what you could do to upgrade the efficiency of your property. While these reports sometimes cost money to obtain, they often pay for themselves if you implement their energy-saving recommendations.

Decide What Energy Strategy Makes Sense. Once you understand what you need to improve, then you must decide in which direction you will take the work. Will you take an aggressive approach, where you change out everything over the next couple of months, or will you take a more gradual approach, where you select one project each year for the next few years?

Most likely your approach will be dictated by the amount of funding you have on hand to pay for the upgrades. If this is the case, then you need to

research not only how much money you have, but also how much "free" money is available to help you. Talk to your supervisors, look at your replacement reserves and budgets, and assess your resources. Then check out the Flex Your Power website: www.fypower.com/res/tools/rgl.html and type in your zip code. This will give you a list of all of the rebates and services (including energy audits!) available in your area.

Determine Who Should Make Energy Improvements. You can choose to install energy efficiency upgrades in one of two ways – either do the work in-house, using your maintenance staff, or hire a contractor. The most cost-effective projects (such as lighting retrofits) won't require a contractor if your staff is knowledgeable. However, if you have a large facility, you might consider hiring a contractor to relieve your staff of the extra work. If you do hire a contractor, get three bids, check references, and licenses (you can check the Contractors State License Board website to verify a contractor's license, status, and reputation. Go to: www2.cslb.ca.gov/CSLB_LIBRARY/License+Request.asp).

Maintain Your Building's Efficiency. Energy efficient equipment is no substitute for proper maintenance. To get the biggest bang for your buck, you must ensure that the energy efficiency improvements are maintained. This means recycling any old, inefficient equipment (such as lighting) still in your inventory (so that maintenance staff doesn't mistake them for the new equipment), monitoring your systems' performance and fine-tuning or calibrating equipment (such as boilers) as needed. Finally, reviewing your bills over time will demonstrate the savings you've realized.



Comprehensive Energy Efficiency Programs for Affordable Housing in California

By Heschong Mahone Group, Inc.

With national attention on energy issues, more and more affordable housing owners and developers are searching for ways to capitalize on energy efficiency. This trend helps save energy, reduce greenhouse gases, and lower utility bills and provide more comfort to low-income and special needs tenants.

The good news for affordable housing sponsors, managers, and tenants in California is that we lead the nation in funding energy efficiency programs to meet this demand. Hundreds of programs funded by ratepayers and governed by the California Public Utilities Commission (CPUC) provide incentives, rebates, information, and assistance to a wide range of markets – from consumers purchasing appliances at local home centers, to commercial new construction, agricultural processes, and affordable housing owners and developers.

Whether you are an affordable housing owner, developer, housing authority, lender or redevelopment agency, there are public service energy efficiency programs geared to help you with the important work of improving energy efficiency in affordable housing.

Of note is the comprehensive menu of energy services provided by the Heschong Mahone Group on behalf of utility companies that include three programs promoting high efficiency new construction, energy retrofits, and free design services to affordable housing. This article reviews these programs.

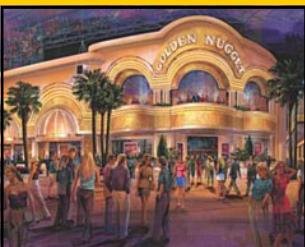
New Construction: California Multifamily New Homes Program

The California Multifamily New Homes Programs offer cash incentives (\$150-\$200/unit) to qualifying multifamily projects that are at least 15% more efficient than the energy code (Title 24). The program also offers design assistance to developers and design teams to help identify specific cost-effective energy efficiency measures. The Design Assistance, provided by the HESCHONG MAHONE GROUP (HMG) in Southern California Edison's and Pacific Gas & Electric's service territories, offers housing sponsors assistance from initial design through final inspection.

The following table lists the incentives offered:

MARK THE DATE!

The 8th Annual Western HUD Lenders Meeting

A painting of the Golden Nugget Hotel in Las Vegas, showing the entrance and some people walking outside.

April 25 - 27, 2007

Location:
Golden Nugget Hotel
Las Vegas, Nevada

**Stay Tuned for
More Detailed
Information
on Reservations**

The logo for the Golden Nugget, featuring the words "GOLDEN NUGGET" in a bold, serif font with a decorative scrollwork border.

Incentive Description	Incentive Amount
Coastal Projects Developer Incentive	\$150 per unit
Inland Projects Developer Incentive	\$200 per unit
HERS Rater Incentive	\$60 per unit (\$12,000 per project cap)

To qualify for these programs, the project must be located in PG&E's or SCE's service territory, exceed the energy code by 15% and show positive electric energy savings.

A set of plans and an electronic version of the energy calculations must accompany the application. The project team will need to arrange for Home Energy Rating System (HERS) inspections to verify that the required measures are installed. In addition to developer incentives, these programs offer incentives to help offset the cost of the HERS rating as well. In all cases, a program representative will assist the project team through the program process to maximize energy efficiency without a time sacrifice during the home-building process. In certain cases where the project design team provides design assistance necessary to achieve the program compliance, they may also receive an incentive of \$50/unit (\$10,000 per project cap) through this program.

Builders, designers, and architects interested in taking advantage of these programs are encouraged to contact an HMG representative as early as possible in the design and building process. For projects in the Southern California Edison service area, contact Colin Jessop at (619) 756-8910 or Jessop@h-m-g.com. For projects in the Pacific Gas & Electric service area, please contact Heather Larson at 510-451-7001 extension 3 or larson@h-m-g.com.

Rehabilitation and Energy Retrofits Designed for Comfort

The most critical area for energy savings in California lies within the older building stock. Many homes were built before an energy code existed (pre-1978). The projects represent the largest opportunity for energy savings and the biggest improvements in tenant comfort. Hence, HMG is offering the program *Designed for Comfort* (*DfC*), which provides cash incentives to affordable multifamily housing owners who improve energy efficiency by at least 20% over existing conditions. Owners who participate in the program help their tenants to save energy, reduce energy bills and improve comfort. Owners themselves realize an increase in the value of the property.

Incentives offered are:

<i>Designed for Comfort</i> Incentives for Rehab Projects	
Incentive Description	Incentive Amount
Small project (3-8 units): Owner Incentive	Up to \$1,500 per unit*
Large project (Over 8 units): Owner Incentive	Up to \$700 per unit*
Special Needs Housing: Owner Incentive	Up to \$500 per unit*
Energy Consultant Incentive	\$40 per unit (\$5,000 per project cap)
HERS Rater Incentive	\$50 per unit (\$6,000 per project cap)

* Stated rebates are the maximum amount payable. Applicants cannot claim rebates in excess of the verified cost of the installed measures. Cost verification is required before rebates are paid.

Incentives offered help offset the cost of the energy efficiency upgrades related to heating, cooling, and water heating. Measures can include air conditioning or heating equipment, insulation, windows, and water heating equipment.

For participating projects, a Home Energy Rating System (HERS) rater will conduct an initial "audit." This is followed by an energy consultant making a baseline assessment with approved software, and recommending potential energy efficiency upgrades. After the work, a HERS rater will need to verify installation of the recommended measures before HMG can process the incentive. The Energy Consultant and HERS Rater incentives help to offset the cost of the analysis and verification.

Upon completion of the project, HMG will help the owner hold a workshop for the tenants to increase their awareness of the energy efficiency improvements the owner made to their homes. At the workshop, each tenant receives a gift box ("EnergySmart Pak") full of additional energy efficiency devices from the *Designed for Comfort* program. The EnergySmart Paks encourage tenants toward further conservation. Each box contains energy efficient lighting and water saving devices, and energy conservation advice.



An example of a community successfully utilizing this program is the City of San Diego's City Heights Urban Village. It was the CRA 2003 Award of Excellence Winner for Community Revitalization. This redevelopment project area has three apartment projects that participated in the *Designed for Comfort* program: Euclid Court (above) Cornerstore, and Teralta Court.

Continued on Page 18

Pacific Currents - October 2006



U.S. Department of Housing and Urban Development
San Francisco Regional Office—Region IX
600 Harrison Street, 3rd Floor
San Francisco, California 94107-1387
www.hud.gov
Espanol.hud.gov

September 20, 2006

TO: HUD'S Multifamily Partners
FROM: Janet L. Browder, Director, San Francisco Multifamily Hub
SUBJECT: Energy Awareness Month and the ENERGY STAR *Change a Light, Change the World*Campaign.

On July 11, 2005, President Bush created the Partnership for Home Energy Efficiency, comprised of the Department of Housing and Urban Development (HUD), the Department of Energy (DOE) and the Environmental Protection Agency (EPA). The Partnership's goal is to reduce household energy costs by 10 percent over the next decade while improving our nation's air quality.

The Partnership has designated the month of October as Energy Awareness Month and is sponsoring the ENERGY STAR Change a Light, Change the World Campaign that will be kicked-off as well in October. The objective of the Energy Awareness Month and the ENERGY STAR *Change a Light, Change the World*Campaign is to promote Energy Efficiency and Conservation throughout America.

Specifically, it is to encourage Americans to change from inefficient incandescent light bulbs to ENERGY STAR qualified ones, thereby conserving energy, becoming more energy efficient as a nation, and helping to reduce greenhouse gas emissions. ENERGY STAR qualified light bulbs are compact fluorescent lights (CFLs) which use 2/3 less energy than incandescent light bulbs and last as much as 10 times longer.

The Partnership will launch the annual ENERGY STAR *Change a Light, Change the World*Campaign and mark the 2nd annual "ENERGY STAR Change a Light Day" together on October 4, 2006. Americans are encouraged to do their part by taking an online pledge to replace at least one incandescent bulb or fixture in their home with one that has earned the Government's ENERGY STAR.

We would like to request that your organization be involved this year by helping to solicit pledges, as an easy but effective way to demonstrate your commitment to saving energy and reducing greenhouse gas emissions. Simply go to www.energystar.gov/joinCAL, and register as a pledge driver by setting a pledge goal. At this website you will find materials you can download to help you invite members of your organization and residents of your apartment communities to take the pledge. Here you will also find personalized web links that allow you to both get credit for your combined pledges and track progress against your goal.

If your organization is unable to be a pledge driver, then we ask that you encourage members of your organization and residents of your communities to take the pledge directly from the campaign website: <http://www.energystar.gov/changealight>.

The Partnership has sent an invitation to every U.S. Governor, encouraging them to issue proclamations declaring October 4, 2006 as ENERGY STAR Change a Light Day. More than half of all Governors joined the campaign in 2005 by issuing proclamations. This year, all the Governors are being asked to join DOE, HUD, and EPA to send the strongest message possible: that using energy efficiently is under every American's control and is everyone's responsibility.

We are also asking you to host an ENERGY STAR Change a Light Day event at your multifamily community on or near October 4, 2006 and to change at least one light bulb or fixture from an incandescent model to an ENERGY STAR qualified one, and to encourage members of your organization and residents of your communities to do the same in their homes. Please invite the residents to be involved in this event along with staff, local government leaders and the press.

We encourage your organization to use the fluorescent bulbs as they utilize less energy and last longer. Please note that your organization will be responsible for providing the fluorescent bulbs but they are an eligible project expense for replacement of bulbs in common areas of the property, e.g. hallways, laundry rooms, but not in individual apartments.

The Partnership is also providing information to local government officials via national associations such as the U.S. Conference of Mayors and the National Association of Towns and Townships. We encourage you to contact your local government leaders directly, inviting them to come to your multifamily community's Energy Star Change a Light event to issue a proclamation declaring October 4, 2006 as the start of the ENERGY STAR Change a Light, Change the World Campaign. Information and a sample proclamation are available now at www.energystar.gov/joinCAL. Click on "support as a government leader." You will also find sample press releases, articles, and much more at this site.

Also, please add your activity to the online campaign registry at www.energystar.gov/joinCAL. We hope you will join with us and many other organizations across America in participating in the ENERGY STAR Change a Light, Change the World Campaign this October and November - making a difference one light at a time, for a brighter future.

We would like to encourage your organization to participate in these various activities as part of Energy Awareness Month and thank you in advance for your support of the ENERGY STAR Change a Light, Change the World Campaign.

If additional information is needed regarding Energy Awareness Month please contact your local HUD Multifamily Program Center Office or go to www.energystar.gov/joinCAL.

WAYS THE TENANTS CAN ASSIST IN CONSERVING ENERGY

- 1 When high wattage light bulbs burn out, replace them with lower wattage bulbs.
- 2 Turn off lights when not in use - both in own unit and in community rooms
- 3 Do not use electric appliances longer than necessary, and be sure to turn off appliances when not in use.
- 4 Do not run hot water longer than absolutely necessary.
- 5 Do not leave stove burners on longer than absolutely necessary.
- 6 Call the management office immediately to report leaky faucets, plumbing leaks and drafty rooms
- 7 In the winter, close the shades or drapes in the evening and leave the thermostat at 70 degrees or less. Lower thermostat to 65 degrees when retiring for the night. Open drapes or shades in the morning to admit winter sunlight and warmth through the windows.
- 8 In the summer, open shades or drapes in the evening and leave the thermostat at 78 degrees. Close drapes or shades in the morning to reduce heat from the sunlight.
- 9 If you leave your apartment for a day or more, set thermostat at 85 degrees in the summer and 60 degrees in the winter.
- 10 Never leave heat or air conditioning on while doors and windows are kept open.
- 11 In nice weather, turn off heat and air conditioning and open windows.
- 12 Keep fan coil units, radiators and baseboard heater surfaces clean.
- 13 Schedule use of laundry and dishwashing machines to allow for full loads.
- 14 Report broken or cracked windows to the manager immediately.
- 15 Use cold-water detergents in washing machine, and wash and rinse in cold water.
- 16 Do not block off air outlets or returns and radiators with furniture or curtains.
- 17 Close doors and shut off heating supply to rooms that are seldom used.
- 18 Increase amount of carpeting in units
- 19 Call the management office if you have any questions or if you have some ideas on further energy conservation. They will be appreciated.

ENERGY REDUCTION TIPS FOR PROJECT MANAGEMENT

- 1 Lower thermostat setting in winter/raise in summer to point that the unit furthest from the heat source will be at the minimum (maximum in summer) setting allowed by local law for day and night settings.
- 2 Reduce or turn off heat/air conditioning in unoccupied areas.
- 3 Turn off lights in community rooms and other common areas when not in use.
- 4 Reduce lighting and bulb wattage in public hallways, lobbies, garage and parking areas, consistent with safety requirements.
- 5 Replace exterior and interior incandescent lighting with fluorescent or other energy efficient lighting in common areas, and as appropriate, in individual units.
- 6 Thermostat setting in vacant units, where individually controlled, should be set to operate at a minimum level necessary to prevent damage to water systems.
- 7 If furnace has natural gas standing pilot, turn it off during the summer months.
- 8 If two boilers are used for space heating, leave one off several cold winter days to test whether heating efficiency of single boiler is adequate.
- 9 Purchase heating fuel (oil) when rates are favorable.
- 10 When replacing kitchen appliances, install energy efficient appliances.
- 11 When painting common areas, use light or reflective paint or consider using washable wallpaper.
- 12 Install carpeting in common areas.
- 13 Install windows shades, external shading elements, tinted glass or interior blinds to direct sunlight, thereby reducing air conditioning needs.
- 14 When making replacements, consider the installation of storm or other energy efficient doors and windows.
- 15 Where there are individual window units, install inside air conditioner covers during the winter months, and provide tenants with specifics as to proper size of a unit that they may install.
- 16 Install photo electric sensors to turn on all exterior lights at dusk and off at daybreak.
- 17 If some halls and stairwells receive natural light, rewire so that lights can be turned off when not needed.
- 18 Reduce domestic hot water temperature to units to a suggested maximum level of 110 degrees to units furthest from the boiler.
- 19 Reduce the burning rate of burners for heating equipment.
- 20 Turn off hot water to areas that do not require it.
- 21 Reduce hot water use through installation of water flow restrictors.
- 22 Hang signs in the laundry room requesting that tenants use lower water temperatures and full loads when doing laundry.

PHECC Operations & Maintenance Checklist

BUILDING ENVELOPE

- Caulk frames and openings
- Patch holes in the building envelope
- Repair cracked windowpanes
- Weather-strip windows and doors
- Install storm windows and doors at the beginning of the heating season
- Remove unit air conditioners in the winter
- Open and close shades in common areas
- Lower awnings in the summer
- Check automatic door closing mechanisms

HEATING AND COOLING

Heating systems in individual dwelling units

- Turn off pilot light in summer
- Clean and adjust burners
- Change/clean filters on forced-air systems
- Inspect equipment for worn or damaged parts
- Lubricate equipment

Central boilers and furnaces

- Turn off pilot light in summer
- Clean and adjust burners
- Check and adjust fuel-to-air ratios
- Calibrate and adjust controls
- Clean fireside of boiler or furnace
- Remove scale buildup on heat exchanger and waterside of boiler
- Operate only as many boilers as needed at one time
- Clean oil strainers
- Clean nozzle or rotary cup on burner

Central heating distribution systems

- Reduce thermostat settings in unoccupied areas
- Check ductwork for leaks
- Keep radiators and hot air registers clean and unobstructed
- Operate vents in hot water radiators and baseboard units
- Check and repair air vents and steam traps
- Balance steam distribution
- Lower steam pressure
- Monitor make-up water consumption

- Replace steam traps
- Check heating elements, controls, and fans on electric distribution systems

Heat Pumps

- Keep air registers open
- Lubricate fan motors and adjust blowers and drive belts
- Clean coils

Cooling

- Turn off cooling systems in unoccupied common areas
- Clean or change air filters
- Clean evaporator coils
- Clean condenser coils
- Clean blower
- Maintain chillers
- Maintain evaporative coolers

DOMESTIC HOT WATER SYSTEM

- Lower water temperature
- Repair all leaks
- Insulate domestic hot water pipes
- Turn off domestic hot water supply to areas that do not need it
- Reduce water pressure
- Flush tank-type water heaters
- Clean/adjust burners on gas and oil water heaters
- Check electrodes on electric water heaters

LIGHTING

- De-lamp over lit areas
- Keep energy-efficient lamps in stock for replacement
- Clean lighting fixtures
- Clean or paint walls
- Check timers on exterior lighting

MISCELLANEOUS

- Calibrate check meters
- Check for and repair water leaks
- Reduce ventilation rates
- Reduce the amount of exhausted air
- Check refrigerators for proper door closure

NOTES:

Demystifying Multifamily Energy Audits

How Energy Audits can help housing sponsors and managers?

An important principle of energy efficiency is that you should know how much energy you're consuming and why before you carry out a energy efficiency retrofits.

This axiom is especially important when housing sponsors are contemplating investments in energy efficiency appliances, equipment, or other building measures with the expectation of reducing operating costs.

Energy audits should be undertaken in all cases where the housing sponsor is seeking to maximize the rate of return on investment or where energy improvements are financed in whole or in part from future energy savings. Furthermore, energy audits are considered an essential component for financial transactions involving existing subsidized housing units to ensure that property and household energy costs remain affordable.

This article describes what is involved in a typical energy audit and reviews how housing sponsors can use information from energy audits to develop energy efficiency plans.

☞ **What Is An Energy Audit?** Energy audits evaluate building systems and characteristics that affect energy consumption (building envelop, heating and cooling, hot water, appliances, and lighting) and assess the potential for improving energy efficiency and the relative merits of available energy measures.

Having a energy audit and using the results in coordination with physical needs assessments supports integrated planning of capital investments, operating improvements, and maintenance cost reductions.

Energy audits typically involve three steps.

Data Collection and Property Inspection. An energy audit identifies how energy is used in a facility. Data is collected on energy use and costs and a physical inspection of the property and energy-related equipment is performed. The physical inspection reviews conditions of equipment, past maintenance schedules, remaining useful life, and system performance. A physical inspection may also consider indicators of performance issues such as leaking or foiled heat exchangers, high humidity, poor space temperature control, and comfort concerns.

☞ **Analysis of Utility Costs.** The energy audit analyzes utility costs of the existing property. Utility data is trended and benchmarked against similar properties with like heating and cooling requirements, and used to provide estimates of energy savings that may be gained by implementing cost effective conservation measures.

☞ **Energy Efficiency Measures.** The energy audit provides a prioritized list of recommended *cost-effective* energy efficiency improvements to reduce energy costs. Cost-effective energy efficiency improvements are energy measures whose estimated energy savings exceed the installed cost of the energy measure over the measure's useful life. Recommendations are based on engineering and economic analysis and consider factors such as operating hours, equipment efficiency, and building and occupant energy demand characteristics. Costs are generally developed through industry norms or available historical project information.

There are several ways to estimate the cost effectiveness of an energy efficiency measure. One method commonly used in energy audits for determining cost effectiveness is calculating the *Simple Payback* of energy efficiency measure. To calculate simple payback the total first cost of the improvement is divided by the first-year energy cost savings produced by the improvement. This method yields the number of years required for the improvement to pay for itself. Simple payback analysis provides a relatively easy way to examine the overall costs and savings potentials for a variety of project alternatives. *The simple payback analysis allows project sponsors to set priorities based on measures that represent the greatest return on investment* and can also help sponsors select appropriate financing options.

Products Of An Energy Audit? The audit report will list energy efficiency measures in rank order based on the measure's simple payback period. In the case of simple improvements such as replacing old fluorescent lights with newer, more efficient systems, or insulating hot water distribution piping, the payback period can be a few years or less. Major improvements such as replacing an older boiler or installing new, energy-efficient windows can take much longer. Measures with lower payback periods generally produce higher rates of return on investment.

Typical outputs of energy audits can be found on Page 22.

Lupine Gardens Apartments, Salinas, California

Project/Location:

306 Soledad Street
Salinas, California

Description:

21 units
20 - 1BR and
1 - 1BR manager's unit.

Project Size:

12,240 sq. ft.

Unit Size:

One-bedrooms (330 and 362 sq. ft.)

Status:

Construction completed
July 2006

Sponsor:

Interim, Inc., Monterey,
California

Architect:

Wald Ruhnke & Dost
Monterey, California

Contractor:

Mill Construction Company,
Salinas, California

Funding Source:

HUD Section 811 Capital
Advance: \$ 2,202,400

Monterey County Housing
Authority Loan: \$ 500,00

Salinas RDA Loan: \$ 400,000

Owner Funds: \$ 410,915

City of Salinas, HOME:
\$ 535,000

CDBG: \$ 145,000

Salinas RDA Grant:
\$ 150,000

Monterey County Grant:
\$ 25,000



Lupine Gardens is located in Monterey County, California, which has one of the highest housing costs in the country and the completion of this project has helped fill this gap by increasing the number of available affordable housing units for very low-income adults with severe mental illness.

The construction of Lupine Gardens has improved the physical appearance of this Salinas neighborhood with its Spanish type architecture tile roof design. Prior to its construction, the site consisted of four buildings that were in states of disrepair. Most importantly, Lupine Gardens has benefited the local residents with the increase of much needed permanent affordable housing for adults with mental illness who are homeless or at risk of homelessness in the City of Salinas.

Lupine Gardens is centrally located in the City of Salinas. It enables its residents to live independently and facilitates them to easily integrate into the surrounding community as its location is in close proximity to public transportation, educational facilities, skill training centers, employment and supportive services that include mental health.



EQUAL HOUSING
OPPORTUNITY

Boulevard Apartments, Petaluma, California



Boulevard Apartments is a .6-acre site located near downtown Petaluma. It consists of three two-story, wood-frame buildings. Two of these buildings have three units on each floor; the third building has a community room, office and laundry room. The ground floor community room opens onto a landscaped courtyard on the interior of the site and it is used for planned and spontaneous social/recreational activities.

The site is a smart-growth, suburban infill site in close proximity to public transportation, shopping and other services. It is directly across Petaluma Boulevard from a supermarket and adjacent to the complex is the Petaluma Police Station. Boulevard Apartments benefits the neighborhood by converting a vacant site into an attractive apartment development and promotes the ability of its residents to live as independently as possible and to integrate into the surrounding community. The sponsor, Buckelew Programs, realizes that opportunities for socialization are crucial to success in independent living for persons with serious mental illness.



Project/Location:
945 Petaluma Boulevard North,
Petaluma, California

Description:
15 Units
14 1-BR Resident Units
1 1-BR Manager's Unit

Project Size:
Site: 38,090 Sq. Ft.
Living Area: 10,683 Sq. Ft.

Unit Size:
5 - 1 BA: 547 sq. ft.
4 - 1 BA: 540 sq. ft.
3 - 1 BA: 536 sq. ft.
1 - 1 BA: 544 sq. ft.
1 - 1 BA 602. sq. ft.

Status:
Construction completed:
July 2006

Sponsor:
Buckelew Programs,
San Rafael, California

Architect:
Kodama Diseno,
San Francisco, California

Contractor:
Ridgeview Builders,
Santa Rosa, California

Funding Source:
HUD Sec. 811 Capital
Advance: \$2,146,000

MHP & Cal HFA: \$ 564,219

CDBG: \$ 80,200

City of Petaluma: \$ 300,000

Boulevard Apartments, Inc.:
\$ 167,041



EQUAL HOUSING
OPPORTUNITY

Continued from Page 10

To improve energy efficiency by at least 20% (one project achieved a 35% energy reduction), City Heights Community Development Corporation (CDC) used high performance windows, solar water heating systems, insulation, and demand recirculation controls on hot water systems.



Teralta Court

"Designed for Comfort Program provided a great opportunity for these projects; especially for Euclid Court which was built in 1946 and was in dire need of new windows and insulation.

Being able to leverage redevelopment funds with the energy efficiency rebates allowed us to make our properties more livable while saving energy," says Randy Simmrin, Property Assets and Operations Director at City Heights CDC.

In the end, the redevelopment agency's dollars can go further; the owner can save on energy costs (and see increased property value), and the tenant can enjoy reduced energy bills and increased comfort. It's a win, win, win situation.

Currently, funding for this project is through San Diego Gas & Electric, Pacific Gas & Electric, Southern California Edison and Southern California Gas Company and all qualifying projects must be served by one of these utilities. For more information on how affordable multifamily projects in your Redevelopment Agency's jurisdiction can benefit from these incentives, please contact Puja Manglani at 510-451-7001 ext. 3, or manglani@h-m-g.com or visit www.DesignedforComfort.com.

HUD's Regional Energy Representative

Wayne Waite is HUD's *Regional Energy Representative* for the Pacific Hawaii Region and a member of HUD's national Energy Task Force.

Wayne wrote several of the energy conservation articles contained in our newsletter, and secured the right to reprint other articles from sources committed to energy conservation. The San Francisco Multifamily Hub appreciates Wayne's substantial efforts to promote energy conservation in multifamily housing and helping us make it a *Pacific Currents* special feature.

At the Department of Housing and Urban Development, Wayne has held several senior management positions including Field Office Director, Senior Budget Analyst, and Senior Policy Advisor to HUD's Deputy Secretary Alfred DelliBovi and Secretary Jack Kemp.

As Region 9's principal manager for energy efficiency, Wayne assists the Regional Director and Region 9's program and field office directors and staff develop strategies and carryout Regional initiatives and actions implementing HUD's Energy Action Plan.

Improving the energy efficiency of housing is not possible without the dedication and commitment by housing providers, managers, and residents to use more energy efficient products and make improvements to our buildings that lower energy consumption and energy costs.



The initiatives discussed in this issue of *Pacific Currents* are the product of partnerships and collaborations to reduce energy consumption and costs in housing supported by HUD programs, which hopefully provide useful models of what can be accomplished by taking simple steps.

The most important and highly valued aspect of Wayne's responsibilities is working with HUD's constituents to improve the energy efficiency of HUD-assisted and financed properties.

Wayne can be reached by e-mail at: Wayne_W_Waite@hud.gov or by phone at (775) 784-5383 extension 236 if you would like discuss opportunities for improving energy efficiency.



Green Resources for the Future

The Green Affordable Housing Coalition began in 2003 as an informal network of some 250 affordable housing professionals and local government staff committed to incorporating green building practices into design, construction, operation, and maintenance of affordable housing. The Coalition has focused on information and training, primarily through brownbag workshops, project case studies, fact sheets, and a compendium of Internet-based resources. In 2005, the Coalition established formal ties with Build It Green and Bay Area LISC to expand and enhance the resources available to affordable housing developers. As a consequence, an array of services is now available or under development:

- **Green Grants and Financing:** LISC is developing a green loan pool for nonprofit housing developers to finance affordable housing developments and community facilities that utilize sustainable building materials and methods. The program will help developers assess the feasibility of incorporating green and offset the differential cost of green elements.
- **GREENbase Database:** Developed in partnership with First Community Housing, Build It Green hosts this comprehensive database tracking costs associated with green materials in affordable housing. LISC is spearheading additional data enhancements.
- **Green Performance Spec:** LISC is developing standardized green protocols and specifications for housing developers
- **Green Operations and Maintenance Guide:** LISC has published a guidebook for incorporating green materials and products in the maintenance and turnover processes of existing affordable housing properties
- **Green Building Trainings:** Build It Green offers a 16-hour Certified Green Building Professional training program and proficiency exam for general contractors, architects, and other residential building professionals. LISC offers workshops on commissioning, green design & construction management, life-cycle cost analysis, and green O&M for affordable housing professionals
- **Green Materials Buyer's Cooperative:** Build It Green and LISC are jointly researching the feasibility of bulk purchasing assistance for green materials through local manufacturers and retailers.

• **Ask An Expert Hotline:** Build It Green's green building hotline delivers free customized phone and email consultations to home owners and building professionals to obtain project advice, product/materials recommendations, and contractor referrals (www.builditgreen.org or 888-40-GREEN).

- **AccessGreen Directory:** Build It Green provides an extensive on-line listing of over 700 green products and technologies available at over 950 locations in the San Francisco Bay Area. This directory allows building professionals and residents to conveniently locate suppliers and installers of green building products and materials, ranging from foundation materials to finishing touches.
- **Green Technical Assistance:** Both Build It Green and LISC provide hands-on project-specific design and planning assistance
- **GreenPoint Rated Program:** This Build It Green program provides developers with validation from a trusted, independent source to support their marketing efforts as green builders.



- **Green Building Awards Program:** LISC provides recognition of outstanding green affordable housing projects
- **National, State and Local Policy Support:** LISC and Build It Green participate in numerous collaborative efforts to encourage policies that promote green affordable housing
- **Green Neighborhood Commercial Corridors:** LISC incorporates sustainability practices into the physical improvements and commercial practices of neighborhood businesses

To Learn More...

Visit - Build It Green: www.builditgreen.org
 Green Affordable Housing Coalition
www.greenaffordablehousing.org
 Bay Area LISC: www.bayarealisc.org

Or contact - Bruce Mast, (510) 845-0472 x111,
Bruce@BuildItGreen.org
 Cathy Craig, (415) 397-7322 x21,
craig@lisc.org



California's Affordable Housing Developers Go Green

Case in Point: Murphy Ranch

In October 2004, First Community Housing completed construction of its Murphy Ranch development in Morgan Hill, California. To the casual eye, the project is beautiful but familiar in appearance. Four- and five-unit clusters of attached town homes, 100 units total, are nestled on a compact seven-acre site near downtown. With a repetitively gabled, ranch-style design and clapboard siding, the development meshes well with the City of Morgan Hill's rural traditions.

But a closer look reveals a project that is a model for energy-efficiency and green building. As a whole, the project exceeds California's energy efficiency code requirements (Title 24, 2001) by over 25 percent. A combination domestic hot water and hydronic water-to-air heat-exchange climate control system conserves energy and reduces construction resources. Numerous design features emphasize easing the utility burden on tenants and improving their quality of life, including efficient shell construction, fluorescent lighting throughout, and in-unit natural gas washers and dryers.

The project also makes maximum use of site-generated renewable energy. A 40 kW photovoltaic system provides 95% of electricity for the common areas and community building. A solar hot water system serves the pool and shower room.



Gables and clapboards siding harmonize with Morgan Hill's small town character

Given continually increasing energy prices, rolling black-outs, and the impact of utility bills on overall housing affordability, it's not surprising that nonprofit housing developers are building to ever-higher energy performance standards. More remarkable is how leading developers are embracing green building as a core component of their development strategy.

In a nutshell, green buildings are designed and built to be healthy, durable, and efficient in their use of energy, water, and natural resources. In the case of Murphy Ranch, a central location was selected to reduce pressure on city utilities and

provide walking and biking access to community and retail services. Residents receive free monthly Eco-Passes, enabling unlimited travel on Santa Clara County's bus and light rail system. The project incorporates a variety of healthy, durable, sustainable, and recyclable or recycled-content structural and finish materials, including low-VOC paints, natural linoleum, and Forest Stewardship Council (FSC) certified wood flooring.



Carports generate both electricity and shade.

What's Behind the Trend?

Why are affordable housing developers building green? Favorable tax credit treatment for green projects through the Tax Credit Allocation Committee is certainly part of the reason. But builders now routinely exceed TCAC requirements. Bruce Mast, Development Director at Build It Green, has been working with affordable housing developers through the Green Affordable Housing Coalition for about five years: "We're finding that affordable housing developers are quicker to embrace green building than their market-rate counterparts—they 'get it.' We attribute that to at least two factors: their business model as builder-owners and their commitment to a broader social mission."

Dan Adams, Project Manager at Resources for Community Development, confirms that analysis: "Because we'll own these projects for the next 50 years, we need them to be durable and economical to operate and maintain. And because our projects serve the most vulnerable segments of society from a health perspective—families with small children, seniors, and the uninsured—good indoor air quality is a basic requirement. It's just good preventative medicine."

Developers are also finding that it pays to be good corporate citizens. As Jeff Oberdorfer, First Community Housing Executive Director explains: "Local governments are making the connection between green building and their mandates to increase solid waste diversion, assure reliable water and energy supplies, maintain viable transportation systems, and address urban run-off. When they see our track record as a green builder, they welcome us into the community."

Enterprise Income Verification (EIV) System

On July 24, 2006, HUD informed all owners and management agents of the new Enterprise Income Verification System and provided information on accessing this new system.

Obtaining access to EIV is essential to be able to incorporate the use of EIV into our day-to-day operations. EIV is an integral part of the Rental Housing Integrity Improvement Project (RHIIP) initiative to reduce errors and improper payment in the administration of assisted housing programs. Implementation of EIV will increase the accuracy of rent and income determinations, ensuring that the right benefits go to the right people.

EIV will allow owners and agents to obtain social security (SS) and supplemental security income (SSI) benefit information which was formerly available through the Tenant Assessment Subsystem (TASS). TASS was eliminated on September 29, 2006. SS and SSI information will only be available through EIV after that date.

In transitioning from TASS to EIV prior to mid-October 2006, SS and SSI benefit data may not be available for reviewing in either TASS or EIV. During this period, owners and agents are advised to use tenant-provided SS/SSI benefits letters, dated within the last 60 days, to satisfy income verification requirements. You must document in the tenant's file why this third party verification was not available.

Eventually, owners and agents will also be able to obtain the Department of Health and Human Services' (HHS') National Directory of New Hires (NDNH) data through EIV. This data will provide family new hire, wage, and unemployment insurance benefit data. HUD had anticipated that this information would be available through EIV by September 25, 2006. However, due to EIV system security and development requirements, this date has been postponed.

Updated instructions for accessing EIV data and a revised EIV Coordinator Access Authorization form are now available at www.hud.gov/offices/hsg/mfh/rhiip/eiv/sysupdates.cfm. If you have already submitted the form, you do not have to submit the revised form for EIV access authorization rights. Those who have submitted forms but have yet to receive confirmation should be receiving such confirmation soon.

HUD will continue to keep you informed of EIV system updates, interruptions, etc., through the website above.

Emergency Capital Repair Program (ECRP)

Applications for the Emergency Capital Repair Grants are being accepted on a first-come, first-served basis by HUD offices until available funds are expended. If your property is designated for occupancy by the elderly and has critical repair needs, it may be a good candidate for this grant program. Information on submission requirements is available at http://www.hudclips.org/sub_nonhud/cgi/pdf/4745.pdf

HQ is finding that many applications for the ECRP Grants do not contain written cost estimates and specifications that are within six months of the date of the application. Estimates and specifications are critical in supporting the owner's request for funds under this program.

If your project is in need of critical capital repairs, please be sure to submit estimates and specifications as well as other required documentation to your Project Manager. Only complete packages containing all information will be forwarded to HQ for consideration.

Combined Heat and Power Can Significantly Reduce Annual Energy Costs

The U. S. Departments of Housing and Urban Development (HUD) and Energy (DOE) have an initiative for promoting the use of combined heat and power (CHP) in multifamily housing.

Combined Heat and Power – also known as “cogeneration” – is the simultaneous production of two or more useful forms of energy from a single fuel-consuming device. The average efficiency of the fossil-fueled power plants in the U.S. is 33% and has remained virtually unchanged for 40 years. This means that two-thirds of the energy in the fuel is lost as heat. CHP systems recycle waste heat and convert it to useful energy, and they can achieve overall efficiencies of over 80%.

CHP can significantly reduce a multifamily building's annual energy costs. Instead of buying all the building's electricity from a utility and separately purchasing fuel for its heating (mechanical) equipment, most – or even all – of the electricity and heat can be produced for less money by a small on-site power plant operating at a higher combined efficiency.

The type of CHP system commonly applied to multifamily housing uses a device that contains an engine, similar to that found in a car or truck, or a micro turbine, which drives a generator to produce

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Development Corner

Section 202/811 Initial Closings

Nanaikeola Senior Apartments, Section 202, 40 units, Waianae, HI

Section 202/811 Final Closings

Dina Titus Estates, Section 811, 19 units, Las Vegas, NV
Gardella Gardens Senior Housing, Section 202, 39 units, Livermore, CA
Weinberg Hale Kupaa, Section 811, 5 units, Naalehu, HI

Initial/Final Endorsements

7th Avenue Center, Section 232, 99 beds, Santa Cruz, CA
Apache Junction Health Center, Section 223(a)(7), 190 beds, Apache Junction, AZ
Buttes Christian Manor, Section 223(f), 100 units, Marysville, CA
Chaparral Winds Assisted Living, Section 223(f), 86 beds, Surprise, AZ
Chaparral Winds Independent Living, Section 223(f), 144 units, Surprise, AZ
Christian Care Center, Section 223(a)(7), 68 beds, Phoenix, AZ
English Oaks Convalescent & Rehabilitation Hospital, Section 223(f), 180 beds, Modesto, CA
Hale Nani Rehab and Nursing Center, Section 223(f), 288 beds, Honolulu, HI
La Casa De Los Leones, Section 223(f), 36 units, Tucson, AZ
Matthew Henson Apartments Phase III, Section 221d4, 136 units, Phoenix, AZ
New Hope Care Center, Section 223(f), 99 beds, Tracy, CA
Oak Tree Village, Section 542(c), 175 units, San Jose, CA
Park Lee Apartments, Section 221d4, 523 units, Phoenix, AZ
Plaza de las Flores, Section 542(c), 101 units, Sunnyvale, CA
Port Royal II Apartments, Section 221dr, 44 units, Sierra Vista, AZ
Regency at Puakea, Section 232, 82 beds, Lihue, HI
Sister Thea Bowman Manor, Section 223(f), 55 units, Oakland, CA
Terman Apartments, Section 223(a)(7), 92 units, Palo Alto, CA
The Hilarita, Section 223(a)(7), Tiburon, CA
Valley Village Retirement Center, Section 223(a)(7), 300 units, Santa Clara, CA
Woodmark at Sun City, Section 223(f), 133 beds, Sun City, AZ

Continued from Page 15 - "Demystifying Multifamily..."

Energy Audit Outputs

Minimally, the report produced from the Energy Audits should provide the following information to the project sponsor:

- Ø Current energy usage and costs (KwH, Therms, utility cost)
- Ø Prioritized list of recommended energy efficiency improvements
- Ø Installed cost estimates for recommended energy efficiency measures
- Ø Expected useful life of recommended energy measures
- Ø Annual energy saving estimates (consumption and cost reductions)
- Ø Simple payback period in years for each recommended measures

Continued from Page 21 - "Combined Heat and Power..."

electricity. The heat (thermal energy) produced by this process is recovered and used to produce hot water or steam, operating a chiller, or serve as a desiccant.

HUD and DOE are partnering to help implement the HUD CHP initiative. Their activities include providing CHP guides for multifamily building owners, arranging for assistance from the eight DOE-funded Regional CHP Application Centers (RACs), preparing case studies, undertaking market analysis and promoting peer exchanges on CHP among the managers of housing developments. Two guides and link to software are available on the HUD website at:
<http://www.hud.gov/offices/cpd/library/energy/index.cfm>.

Issuances

- Notice 06-06, Reinstatement of Policy Permitting Increases of Project Rental Assistance Contract (PRAC) Reservations Prior to Occupancy Under the Section 202 Supportive Housing for the Elderly and the Section 811 Supportive Housing for Persons with Disabilities Program
- Notice H 2006-07, Extension of Housing Notice H 2005-14, Lead Disclosure Requirements and Addendum Format
- Notice H06-08, Fiscal Year 2006 Policy for Capital Advance Authority Assignments, Instructions and Program Requirements for the Section 202 and Section 811 Capital Advance Programs, Application Processing and Selection Instructions, and Processing Schedule
- Notice 06-10, Fiscal Year 2006 Annual Operating Cost Standards – Section 202 Supportive Housing for the Elderly and Section 811 Supportive Housing for Persons with Disabilities Programs
- Notice H06-11, Prepayments Subject to Section 250(a) of the National Housing Act
- Mortgagee Letter 2006-11, Increase in High Cost Percentage for FHA-Insured Multifamily Housing in High-Cost Areas
- Federal Register, June 28, 2006, Changes in Certain Multifamily Mortgage Insurance Premiums; Notice
- Federal Register, August 24, 2006, Notice of Proposed Information Collection for Public Comment on Satisfaction with Service Coordinator Program
- Federal Register, August 29, 2006, Notice of Proposed Information Collection: Comment Request; Submission Requirements for the Section 202 Supportive Housing for the Elderly and the Section 811 Supportive Housing for Persons with Disabilities Capital Advance Programs
- Handbook 4060.1 REV02, Issued August 14, 2006, FHA Title II Mortgagee Approval Handbook
- Federal Register, September 21, 2006, Notice of Proposed Information Collection: Comment Request; New Approach to the Anti-Drug Program, comments due November 20, 2006
- Federal Register, September 15, 2006, HUD's Fiscal Year (FY) 2006 Notice of Funding Availability, Policy Requirements and General Section to SuperNOFA for HUD's Discretionary Grant Programs; Lead Hazard Reduction Demonstration Program NOFA; Competition Reopening Announcement; Notice
- Operating Cost Adjustment Worksheet – corrected copy
- Contract Renewal Request Form, Multifamily Section 8 Contracts
- HUD Handbook 2000.04, REV-2, CHG-2, Chapter 8, Consolidated audit guide for Audits of HUD Programs, HUD – Approved Title I Nonsupervised Lenders and Loan Correspondence Audit Guidance

COMINGS AND GOINGS

Retirement, Robert Skinner, San Francisco Multifamily Asset Management, 9/06

Pete Koziol, Phoenix Multifamily Production , new position Phoenix Public Housing, 9/06

Welcome: Gary Lee, Project Manager, San Francisco Asset Management, 9/06

**U.S. Department of Housing and Urban Development
Office of Multifamily Housing, 9AHM
600 Harrison Street
San Francisco, CA 94107-1387**



CALENDAR

October, 2006

- 4 - 6 Certified Manager of Maintenance, San Francisco, CA
NCHM, www.nchm.com
- 4 - 6 Certified Occupancy Specialist, San Jose, CA NCHM,
www.nchm.com
- 4 - 6 Tax Credit Specialist, Honolulu, HI, NCHM,
www.nchm.com
- 18 - 19 Realistic Approaches to Drugs and Alcohol Reduction
(RADAR) Oakland, CA, NCHM, www.nchm.org
- 19 HUD Multifamily Industry Meeting, 600 Harrison Street,
3rd Floor, San Francisco, CA
- 25 - 27 MOR Specialist, San Francisco, CA NCHM,
www.nchm.com

November, 2006

December, 2006

- 6 - 8 Certified Occupancy Specialist, Fresno, CA, NCHM,
www.nchm.com
- 8 AHM HUD Multifamily Housing Audit Seminars, Sacramento, Quadel, www.quadel.com

January 2007

- 18 HUD Multifamily Industry Meeting, 600 Harrison Street,
3rd Floor, San Francisco, CA

