

Business Partners

Spring 2010 | A newsletter to inform customers of Roseville Electric

Roseville's Wastewater Treatment Facilities, **Using Efficient UV Light to Recycle Water Right**

As an electric utility we normally discourage the practice of mixing water and electricity (for safety reasons of course!) but for this article we'll make an exception. You probably know where the water goes after you take a shower, flush the toilet or run a load of wash; but what you may not know is how much energy it takes to process it to make it clean again.

In 2009 the State of California imposed strict new regulations on how the City of Roseville's wastewater treatment plants treat and process water. When it came to selecting and implementing a new disinfection system, City engineers had a tough choice to make.

Roseville's two wastewater treatment plants process anywhere from 15 to 30 million gallons of wastewater a day depending on the season. The water is treated to a level that makes it safe to be discharged into local streams. Wastewater treatment plants historically disinfected water by using chlorine. Today, Roseville's facilities use ultra violet (UV) lights to disinfect the water as part of a multi-step process. City engineers had to choose between two UV technologies, medium pressure (MP) and low pressure high output (LPHO) systems.

"We hired Carollo Engineers to determine which of the two UV technologies would be the most cost effective solution for the treatment facility retrofit," says Ken Glotzbach, Senior Engineer for the Roseville Environmental Utilities and project lead engineer. "They took into consideration a whole host of cost saving measures, including UV lamp life, maintenance and energy efficiency."

A cost analysis determined that the low pressure high output (LPHO) system provides the City and its rate payers with the best long-term value. The LPHO lamps last about twice as long as the medium pressure (MP) lamps thus, significantly reducing



maintenance costs. In addition to lower overhead costs, the energy savings for a LPHO system is significant.

"Retrofitting the two facilities with the LPHO system versus the MP system saves approximately 9,000,000 kilowatt-hours per year (combined) and reduces overall peak demand by more than a megawatt," Glotzbach says. "That translates to approximately \$805,000 in avoided energy costs per year, making this the optimum choice."

In addition to the energy efficient changes to the UV system, the wastewater treatment process produces recycled water which is used to irrigate golf courses, medians and parks, as well as provide a sustainable water source for cooling towers at the Roseville Energy Park.

When considering new equipment, evaluating its efficiency is an important part of the decision making process. Roseville Electric may have rebates if the high efficiency technology is selected and it meets our program requirements. Contact your account representative for more information.

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- Ken Glotzbach

senior engineeer, Roseville Environmental Utilities







Kaiser Permanente:

Medicine in a Whole New Light

Kaiser Permanente's Roseville medical Center, one of the city's largest health care facilities, recently completed "cosmetic surgery" on two of its medical office buildings. Kaiser Permanente took advantage of Roseville Electric's lighting rebates to replace its existing T8 lighting system with new low-wattage, high-efficiency T8 lamps and ballasts. The lighting retrofit reduced Kaiser Permanente's peak demand by 75.55 kW and annual energy consumption by 330,000 kWh. In addition to the energy savings, the medical center is saving about \$8,600 every year in avoided maintenance costs.

The two medical buildings - one is 15 years old and the other is a little more than a year old, - house variety of office spaces, patient exam rooms, radiology, laboratories, pharmacies and conference rooms. The lighting retrofit replaced approximately 9,600 32 watt T8 lamps with new energy efficient 25 watt T8 lamps. The majority of the new lamps have a 30,000 hour lamp life, which is a 20 percent improvement over the life of the older T8 lamps. By strategically installing lamps with a 40,000 hour life, Kaiser Permanente greatly reduced maintenance calls and costs.

"We decided to move forward with the lighting retrofit because it reduced our energy and maintenance costs," says Russ Palchak, assistant administrator Operations Support Services at Kaiser Permanente. "Another nice aspect is that we are doing our part to help preserve our environment."

The new lamps will reduce the medical center's carbon footprint by approximately 2.9 million pounds of carbon dioxide over the next ten years. The reduction is equivalent to saving more than 154,000 gallons of gasoline, removing 235 vehicles from our roads and planting 33,775 trees.

After the completion of the lighting retrofit Palchak asked employees if they liked the change. As it turns out the majority of employees didn't even know the lamps had been upgraded. "That's actually good news," Palchak says, noting that the medical center has significantly reduced its energy load without sacrificing the lighting quality of the two medical office buildings.

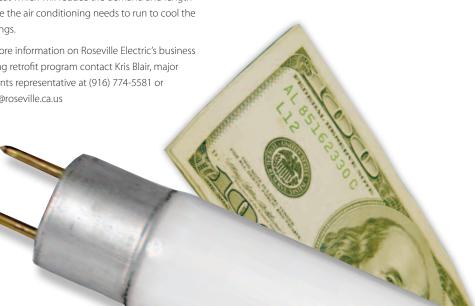
"I would recommend this lighting retrofit to other businesses because of the instant payback," says Dave Lockhart, project manager at Kaiser Permanente. "With the new longer lasting lamps, our staff can focus on other important maintenance items."

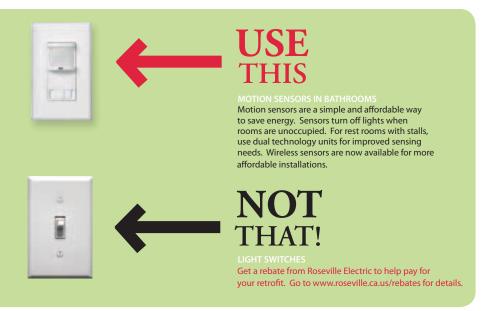
In most buildings, lighting is a significant part of a customer's energy use. The opportunity to reduce energy consumption without compromising lighting levels is a big benefit for the medical center. As an added bonus, these lower wattage lamps put off less heat which will reduce the demand and length of time the air conditioning needs to run to cool the buildings.

For more information on Roseville Electric's business lighting retrofit program contact Kris Blair, major accounts representative at (916) 774-5581 or kblair@roseville.ca.us

New Enhanced **Lighting Rebates**

Roseville Electric's commercial lighting program recently doubled the rebate amount! That's right, the Small Business Customer lighting program, known as Two Five -0, has expanded to include customers with demand up to 250 KW. In addition, medium and large business customer rebates have doubled from the previous rebate level. Making a good thing even better, the popular HID hibay to T8 or T5 hibay fixture retrofit is now offered at \$250 per fixture, covering most of the retrofit cost. Customers interested in lighting rebate programs are encouraged to call now while funds are available. For more information call us at 79-POWER or visit www.roseville.ca.us/electric





MYTHBUSTERS: Turning Lights On and Off

MYTH: Leaving lights, computers and office equipment on uses less energy than turning them on and off for short periods of time..

TRUTH: Many employees leave office lights and computer displays on when they leave for lunch thinking it will use more energy to turn them back on than to leave them on. The truth is that the small surge in power needed to start devices is much less than the power that is wasted by leaving items on when they are not needed or being used.



Update on Roseville Electric's Rate Increase

In an effort to bridge a budget gap that is expected to grow to \$98 million by 2014, Roseville Electric has implemented a series of rate increases over the next 18 months. On bills issued on July 1 and later, customers will see a 6.2 percent rate increase.

The rate increase, which was approved in late 2009, was needed due to the sudden and abnormal downturn in the economy coupled with rising energy costs. Before Roseville Electric considered a rate increase, your municipal utility made several

significant budget cuts including reducing staff, and travel and training. Roseville Electric also cut its capital improvement projects and employee compensation.

For more information please call 79-POWER or visit our website at www.roseville.ca.us/electric

Information about the hydroelectric surcharge will be available in early June. Visit www.roseville.ca.us/hydroelectricrate after June 1 for more information.

Celebrate Business by Celebrating the Earth

In these tough economic times we're all looking for creative ways to communicate with our customers. This year more than 70 local businesses have signed up to participate in the City of Roseville's 3rd Annual Celebrate the Earth Festival at the Utility Exploration Center. The event attracts more than 3,500 visitors to Mahany Regional Park for the purpose of showcasing sustainable lifestyles using environmentally friendly products and services. You should consider participating if you're a business or not-for-profit organization seeking additional exposure.

The festival is the centerpiece of two weeks of Earth Day activities scheduled throughout Placer County. The event aims to raise public awareness of the challenges facing our environment while providing earth-friendly solutions through new products and services that improve homes and lifestyles. Booth and sponsorship range between \$20 and \$4,000.

In addition to the Earth Day festival, participating businesses also receive media coverage at no extra charge. A special program will be published in all Gold Country Media newspapers, reaching more than 60,000 homes in Placer County, including Auburn, Roseville, Rocklin, Loomis and Folsom. Participating businesses will be listed in the special insert and have the opportunity to advertise at a reduced rate.

If you've been looking for an opportunity to gain exposure for your earth friendly products or services - don't wait any longer! Take advantage of this popular and well attended annual event. Call or email Mark Murphy, Earth Day Festival coordinator, at (916) 746-1550 or mmurphy@roseville.ca.us



Don't get Burned by the Summer Heat - Check Your AC Today

Summer is almost here and that means it's time to start thinking about your air conditioning unit before the heat arrives. That's right, now is the time to have your AC maintenance work completed, Be sure to clean and lubricate the mechanical components, monitor refrigeration levels, clean condenser coils, fix economizers, and check filters, screens, motors, bearings, pulleys and sheaves. And don't forget to set your thermostat for summertime operation and when the building is unoccupied. For more information call us at 79-POWER or check us out online at www.roseville.ca.us/rebates



Roseville

Business Survey

As part of the City's Economic Development Strategy, an aggressive Business Retention Program was recently launched to assist the local business community.

Your confidential participation in this survey is one of the most important ways you can provide feedback and shape the economic future of your Roseville business community. Please visit the City's homepage and click on Business to find the survey.



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Roseville Electric



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