



# Business Partners

Winter 2008 | A newsletter to inform customers of Roseville Electric

## Utility Exploration Center Dazzles, Educates Visitors

If you know that the average baby wears 6,000 disposable diapers by age 2 ½, or that producing a single cup of coffee generates a pound of greenhouse gas emissions (thanks to the energy it takes to grow, ship and roast coffee beans even before that cup is brewed), you have probably visited Roseville's new Utility Exploration Center (RUEC). The center's displays feature those and hundreds of other thought-provoking facts that just may change the way you live.

The first of its kind on the West Coast, the RUEC is built to museum-level standards and uses high- and low-tech interactive displays to turn learning about preserving resources into a full-sensory adventure. The RUEC opened its door in January and promises to keep visitors coming back for many years with changing displays, community activities, and training opportunities for schoolchildren, residents and businesses. Workshops on new lighting and other energy-saving technologies for business are among the many programs planned.

You can take part in the center's evolution by volunteering directly and enabling employees to volunteer their time. The center's two full-time staff and a handful of part-time employees will need community support to keep the center going strong. In addition, the center needs sponsors to partner with it and help fund new displays and allow it to continue expanding its programs to Roseville and the surrounding region.

If you have not yet visited the RUEC, you can find it within the new Martha Riley Library in the Mahany Park complex at 1501 Pleasant Grove Blvd. The facility's decidedly modern take on the traditional library notion is also worth exploring, as are the resource-smart building features. The building is currently moving through the certification process to become the city's first U.S. Green Building Council LEED™-certified building.

**To find out more about volunteer and sponsorship opportunities, call the center at (916) 746-1550 or visit the website at [www.roseville.ca.us/explore](http://www.roseville.ca.us/explore)**



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Roseville Electric



## RE's Two Five-0 Program: Easy, Affordable Lighting Upgrades

A Roseville store selling small railroad tracks and trains and another selling big men's clothing share the common bond of being among the first commercial customers to take advantage of Roseville Electric's Two Five-0 small commercial lighting rebate program.

Paul Wagner's Big & Tall and Railroad Hobbies, Inc. saw the program's advantages and quickly signed on to lower energy use and save money on their energy bills. Paul Wagner's Big & Tall replaced more than 100 fixtures and Railroad Hobbies upgraded 65, both moving from T12 fluorescent fixtures with magnetic ballasts to more efficient T8 fixtures with electronic ballasts.

Best of all, neither customers paid money up front for the retrofit. The Two Five-0 program makes it possible for businesses to pay only the difference between the cost of the lighting upgrade and Roseville Electric's

rebate amount. In Paul Wagner's case, the rebate paid for the retrofit and will save 20 percent to 40 percent on the store's energy costs for lighting.

"We designed the program so that customers can move up to better efficiency with very minimal up-front costs," said Program Manager Mark Riffey. "The contractor handles everything, so that the customer pays at completion, and only the amount not covered by the rebate. Since rebates are quite generous, it's not uncommon for customers to pay little or nothing at all."

The lighting upgrades typically create very little disruption. "The contractors were in and out very quickly. My business was not interrupted during the process," said Railroad Hobbies Manager Mike Schroedle. "And we're very pleased with the results."

Store customers are also pleased with the improved light quality. As one Paul Wagner's employees noted, they can show customers the difference between the navy blue and black fabrics without going to the window.

The Two Five-0 program debuted in August 2007 and to date has more than 150 customer reservations. When all of the reservations are installed, the program will save local businesses more than 2.1 million kWh and avoid more than 780 tons of greenhouse gas emissions each year, the equivalent of planting about 280,000 trees annually.

**If you would like more information on how your business can save energy, please call Mark Riffey at 79-POWER.**

## Research Pays Off in PRIDE Industries' Lighting Upgrade

George Neidhardt, facilities manager for PRIDE Industries, knew it was time for a change.

"Like many businesses, we're going through the process of finding ways we can reduce energy consumption across the board," said Neidhardt. "Time-of-use billing opened our eyes to when we use power and made us look at possible changes.

The metal halide warehouse lights were among the first things we looked at—they can't be used with occupancy sensors and they lose 40 percent of their lumens in a few months, creating shadows and dark spots. They also generate heat, which drives up air conditioning use."

Good light quality is important to PRIDE, a nonprofit provider of business services that employs 3,700

people nationwide, including more than 2,700 employees with disabilities.

Neidhardt's search for a better solution led him directly to T5 linear fluorescent technology, which uses considerably less power to produce better light quality, as measured in foot-candles. T5 systems also generate little heat and they turn off and on quickly to work well with occupancy sensors. Still, Neidhardt wanted to be certain of his choice before making a change.

"We tested competing T5 systems on two rows, measuring foot-candle output under each fixture. The reflectors used in each fixture led to very different foot-candle measurements at the work bench level, so it was a worthwhile exercise and one I recommend," Neidhardt said.

Once testing was complete, Neidhardt replaced 120 400W metal halide HID fixtures with T5 linear fixtures that use less than 234W each. In addition, the T5 fixtures allowed PRIDE to install infrared occupancy sensors that automatically turn lights on and off as people come and go. The project is saving the organization about \$17,000 in annual energy costs—\$11,000 from the T5 upgrade and \$6,000 from the occupancy sensors. According to Neidhardt, the savings combined with a Roseville Electric lighting retrofit rebate will pay for the upgrade in seven to eight months. The new lighting has proven beneficial enough to repeat throughout the rest of the warehouse areas in Roseville and their North Natomas facilities.

# Rising Costs Drive Up Energy Rates

As a not-for-profit municipal utility, our concern is providing customers with reliable energy. For more than 90 years, we have met that challenge with award-winning results and energy rates among the lowest in the nation. Escalating oil and natural gas costs, foreign competition for steel and other building materials, and climate-change reports and regulatory responses, have made providing electricity more costly for utilities across the nation. Those forces are expected to continue driving costs higher, requiring Roseville Electric to adjust rates to cover the cost of providing power and maintaining system reliability. Even with an internal cost-cutting program, we face a projected \$85 million deficit by 2012 without the rate adjustments and other measures being put in place.

In December 2007, the Roseville City Council approved incremental rate changes proposed by Roseville Electric and recommended by the Roseville Public Utilities Commission. In February 2008, all commercial and residential rates will increase by 6 percent, with another 6 percent increase scheduled for February 2009. To minimize the rate adjustments, the council approved additional measures that include:

- Establishing a third tier for residential customers who use more than 1,000 kWh in a month
- Establishing a Climate Change Mitigation charge for residential and business customers amounting to \$4 per month for residential and small commercial and \$25 per month for medium and large commercial customers
- Reestablishing the Electric Backbone Recovery Fee paid by developers prior to new project construction

It is important to note that even with the rate change, our commercial rates remain the lowest in the region. With utilities across the state and nation facing the same situation, Roseville Electric's commercial rates will be more than 30 percent lower than PG&E rates and will continue to place among California's lowest.

Regardless of debate over climate-change causes, the days of cheap gasoline for cars and low-cost power for homes and businesses appear to be ending. We at Roseville Electric encourage all customers to consider the implications and take advantage of the many energy-saving technologies now available. In many cases, we offer rebates or incentives to make energy efficient upgrades more affordable. With energy costs expected to continue rising, project pay back also accelerates on measures that lower use. Decreasing energy consumption is an important way we can all contribute to reducing greenhouse gases and lessening their impact on climate change for future generations.

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## TECH CORNER

### Occupancy Sensors for Effortless Energy Savings

"Turn the light off when you leave the room," is something parents have said since the light bulb was first introduced more than 100 years ago. Today, technology has replaced parents' admonitions with simple devices that turn on lights when a body is present, turning them off again when the person leaves the area.

Passive infrared (PIR) sensors are the most common and operate by detecting heat given off by a body. There are also ultrasonic sensors that detect high-frequency sound changes and hybrid detectors that combine PIR and ultrasonic technologies. Depending on where they are placed, occupancy sensors can reduce

lighting operating times by 25 percent to 40 percent. They are most effective in spaces where people move in and out frequently and in unpredictable patterns, including private offices, lecture halls, auditoriums, warehouses, garages, restrooms, and conference rooms. Occupancy sensors come in a wide variety of styles for applications ranging from wide open areas to aisle ways to offices, with some controlling plug loads, as well.

**To learn more about this easy and affordable way to cut energy use, visit the Business Energy Advisor in the Commercial Customers section of the Roseville Electric Web site [www.roseville.ca.us/energyadvisor](http://www.roseville.ca.us/energyadvisor)**



# Earth Day 2008: Think Globally, Celebrate Locally



Celebrate the Earth with your community this April 19 from 10 a.m. to 4:00 p.m. at the recently opened Roseville Utility Exploration Center.

The center will be the gathering place for day-long activities, featuring a number of expert speakers capped by a climate change panel moderated by Jill Savery, Olympic gold medalist and sustainability consultant to the International Olympic Committee and others.

There will also be plenty of eco-fun activities for kids and families, including guided tours of the center, live music, the Dr. Solar Good Time, Sunshine Traveling Medicine Show, art and how-to demonstrations, food vendors, a courtyard packed with booths offering eco-smart products, services and information—and much more!

**You can find the RUEC within the Martha Riley Library at 1501 Pleasant Grove Boulevard, Roseville. For more information about the Earth Day Celebration, visit [www.roseville.ca.us/explore](http://www.roseville.ca.us/explore)**

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