

Opinion: Locals Taking Action – Lighting the way

By Rebecca Bryson

This column highlights examples of locals making positive change in our community and steps – large or small – that all of us can take to make Tahoe a better place.

The latest in a series of actions to improve our schools' sustainability occurred quickly and quietly over spring break. Several months prior, the Lake Tahoe Environmental Magnet School PTA was pondering how to spend some extra year-end money. They proposed funding a LED lighting retrofit that would not only be good for the environment, but also save money for the school district and, ultimately, taxpayers.



The PTA contributed \$12,121 to replace the existing fluorescent tube lighting in every classroom with super efficient LED lights.

The school decided to focus on classrooms first because the LEDs offer a better quality light and none of the visible flickering that can be associated with increased behavioral issues. Lake Tahoe Unified School District will also receive a rebate from Liberty Utilities, which will go toward installing LEDs in the remaining halls and cafeteria area.

Through this project, 870 15-watt tubes were installed, replacing the older 32-watt fluorescent tubes. It was no small feat to get a project of this scale and size completed during the school year without disrupting students. In early spring, district Facilities Manager Steve Morales and Principal Joel Damerl met with Liberty Utilities to assess the options. The Facilities Department then researched current technologies –

consulting with various utility and manufacturer representatives, chose several products to test pilot, negotiated the pricing for the selected product, and mapped out a strategy for installing all tubes during spring break and replacing some older ballasts where necessary.

However, the selected tubes only arrived the Thursday before spring break started. School district staff then worked tirelessly over the break and even during their weekends to install all 870 lights before classes started again. The team was led by Eric Voelker and included Jeff Collier, Genaro Gutierrez, Chris Lauer, Adon Pulido, Juan Marquez, and Tim Torpin, who all worked one or both of the weekends to complete the work. Thanks to their efforts there was no disruption to the students.

While LED lights are definitely more expensive than standard non-efficient lights, the price has dropped dramatically in the past few years. In general, LED tubes use 12 to 14 watts less than conventional fluorescent tubes or 45 percent less energy per tube. This results in a fast financial payback and a high return on investment. The payback time for LED tube conversion should be in the one to two year time frame for the typical business. With an LED lifespan of 10-20 years, savings really begin to add up over the years.

Other benefits of LEDs are that they turn on instantly and work better with occupancy sensors than traditional fluorescent tubes, which tend to burn out faster if they are turned on and off frequently. In addition, LEDs typically have a longer lifespan than fluorescents, which reduces the maintenance costs associated with removing and replacing the bulbs. LEDs also do not contain mercury, and thus are better for the environment, and offer significant savings on waste disposal fees (currently set at \$1/per fluorescent tube).

PTA members will be at the May 12 school board meeting to present the project and officially "donate" the lights to the

school. This project is a test pilot and will hopefully be replicated at other Tahoe schools over time.

The great news is that what's good for our schools is also good for our homes. So what are you waiting for? Liberty Utilities offers free residential and commercial energy audits. Their residential audits provide CFL and LED free lights as well as other energy and water-saving devices. Commercial customers can get rebates for upgrading the efficiency of their building. Contact Liberty Utilities at 800.782.2506, Monday through Friday 8am-5pm.

If you would like to get involved in supporting an LED retrofit at another school or your place of work, contact the Energy, Water and Waste Workgroup at eww.ltsc@gmail.com.

Rebecca Bryson wrote this in collaboration with members of the Energy Water and Waste Workgroup of the Lake Tahoe Sustainability Collaborative. The Collaborative is a group of more than 100 community members, business owners, agency representatives and nonprofit employees committed to supporting and accelerating the changes necessary to create a thriving, vibrant future for Lake Tahoe.