



GCEA NEWS



JANUARY – MARCH 2012

THE GUNNISON COUNTY ELECTRIC ASSOCIATION INCORPORATED

Inside This Issue

- **CSI: Climate Status Investigations**
pages 1 and 2
- **GCEA News Briefs**
page 2
- **Lighting Retrofit Rebates**
page 3
- **Heat Saving Tips**
page 3
- **Kill-A-Watt Monitor**
page 4
- **GCEA Secret Santa Elves**
page 4
- **Home Safety Checklist**
page 4

Energy Efficiency Tip:

Buy Energy-Smart Products

Before shopping for new appliances, remember it pays to do your homework first. Always look for the yellow Energy-Star label and you may qualify for a GCEA appliance rebate.

Corrections and comments are always welcome. Please contact the editor, Vicki Spencer at: vspencer@gcea.coop or 800-726-3523 or 970-641-7359.

Member Owned  A Touchstone Energy® Cooperative



CSI: Climate Status Investigations

By Vicki Spencer, Energy Use/Communications Specialist

Last summer more than 25 middle and high school teachers participated in a multi-day professional development institute titled “CSI: Climate Status Investigations.” The hands-on training was presented by the Keystone Center for Education and sponsored by Tri-State G&T at their Westminster headquarters.

The Keystone Center is known for providing teachers and students with opportunities to gain skills that help them excel in their professional and civic endeavors. The CSI offered an unbiased, interdisciplinary curriculum designed to explore the issue of global climate change.

Dan Scroggins, who teaches physical, life, and earth sciences at Lake Community School, found the curriculum to be exceptional. He was enthusiastic about how the curriculum was introduced to the teachers. They were divided into small groups where they tried out the lessons, discussed the activities with one another, and engaged in hands-on laboratory exercises.

With so many standards to meet, it is difficult for teachers to introduce new ideas into their classrooms. Dan emphasized that “the institute’s curriculum was based on the state standards, so it will be easy to adopt in my classes.” Crested Butte teacher, Lisa Hart, agreed. Just a week after attending the class, she came to GCEA headquarters to tell us how much she learned and how excited she was to get new ideas for her 7th grade life science classes.

What was most exciting for Dan and Lisa was the opportunity to share ideas with the other teachers



Crested Butte Life Science teacher Lisa Hart (second from left) lends a hand to (left to right) Christian Bray, Garrett Pierson, Caroline Chandler, and Elsa Matyk (hand holding graduated cylinder).

and learn from their experiences. This type of opportunity happens less frequently for teachers in small communities like Lake City and Crested Butte than it does in urban areas.

Both Dan and Lisa expressed appreciation for the additional financial contribution from GCEA

(continued page 2)

CSI, continued from page 1

and Tri-State for purchasing classroom materials. When visiting Lisa Hart's seventh grade classroom, I was able to see how important laboratory equipment is to the students. The exercise that day was to determine whether the carbon dioxide in our atmosphere has weight (mass). The experiment required students to form hypotheses and then conduct experiments to try to prove their hypotheses. Some students hypothesized that CO₂, being a gas, did not have mass, while others hypothesized that it did.

Using equipment purchased through the CSI grant, the students performed the following experiment. They mixed baking soda and vinegar in a flask to create CO₂ and then they captured the gas in a balloon. They weighed the entire flask assembly before and afterwards to see if there was a change in weight. They found that CO₂ does have mass.

In another experiment, the class tried to simulate atmospheres in jars. One atmosphere was room air, and the other was enriched with more CO₂. They exposed both jars to sunlight and monitored the temperatures. Their results did not lead to a definite conclusion about the ability of CO₂ to lead to warmer air temperatures. Nonetheless, according to Ms. Hart, the discussion that followed turned out to be the most valuable part of the lesson. "When discussing CO₂ as a contributing greenhouse gas, the students came up with a number of ideas as to why their experiment did or did not prove their hypotheses," she said. "For example, one student noted that the experiment was performed in a small, isolated environment, and suggested that the results may be different in a larger environment like the Earth's atmosphere," she said.



Caroline Chandler focuses on the flask and balloon while Elsa Matyk carefully measures the vinegar in a graduated cylinder.

"the institute's curriculum was based on the state standards, so it will be easy to adopt in my classes."



Lake City Community School teacher Dan Scroggins in the lab with 6th grader Peter Sperl.

Judging by the students' enthusiasm and the way they all joined the discussion, it is clear that engaging students in scientific experimentation opens their minds to explore new ideas and further learning. These kinds of rewards are all in a day's work for teachers Lisa Hart and Dan Scroggins.

GCEA News Briefs

Cooperative Enterprises Build A Better World

The United Nations has declared 2012 the "Year of the Cooperative." Throughout the year, the UN will celebrate the contributions that cooperatives make to social and economic development across the world.

As a rural electric cooperative, GCEA will join with others in educating the public about the benefits of cooperative membership and the benefits that GCEA has brought to the communities we serve.



Board Of Directors Election Date For 2012

The election for the board of directors and the 73rd Annual Meeting of the Gunnison County Electric Association, Inc. will be held at the company headquarters located at 37250 US Highway 50, Gunnison, Colorado on Tuesday, June 26, 2012 at 6:00 p.m. Gunnison County Electric's Board of Director positions that are up for election are Districts No. 6 and No. 7. For more information concerning the board election please contact Gunnison County Electric Association, Inc. at 970-641-3520.

Lighting Retrofit Rebates For Local Businesses



Gunnison County Electric Association and Tri-State Generation and Transmission are offering a commercial lighting program as an incentive for local businesses to retrofit existing lighting systems with newer energy efficient systems. If you've already had a commercial energy audit, you know how valuable lighting retrofits can be in reducing your business expenses.

Rebates are available for fixtures within buildings and parking garages as well as canopy lighting and "wall packs" mounted to the outside of buildings. Rebates are calculated according to energy saved. Qualified applicants receive \$250 per kW saved, with a cap at 50% of the fixture material, and maximum of \$20,000 per meter per year.

To be eligible for the rebate, your business must be located within GCEA's service area and you must have a current commercial account. All projects must be pre-approved by GCEA and Tri-State before construction begins. For further information, contact Vicki Spencer, Energy Use/Communications Specialist, at 970-641-7359.



A variety of modern LED fixtures are available for commercial spaces — offices, restaurants, workshops, hotels, and retail stores.

Gaining Control Of Winter Heating Costs

Did you know that most electric baseboard heaters use 250 watts per foot? The longer the heater, the more energy it uses. For example, a 2-foot heater uses only 500 watts while a 6-foot heater uses 1500 watts. If left on for 8 hours a day, the total energy usage for the 6-foot heater would be 360 kWh per month and would cost \$41.40 at GCEA's current rate. If you have several baseboard heaters in your home, you can see how the costs begin to multiply.



One way to get the biggest bang for your buck when using baseboard heaters is to keep the area in front of the heaters clear from obstructions. Large items like couches and beds will absorb the heat that is produced and will cause the heaters to run for longer periods of time. You can maximize the heater's efficiency by leaving at least 6 inches between the front of the heater and your furniture.

Heat generated by baseboard heaters also tends to move up the wall. If windows are located above the heaters, you can prevent warm air from escaping by installing cellular shades and keeping them closed at night when outside temperatures are the lowest and the heaters are working the hardest. Cellular shades come in single, double and triple cell styles. The more cells in a shade, the more energy efficient it will be. Also, the larger the cell size, the better the insulation since the cells trap air in the pockets and prevent extreme temperature changes in your home.



This double cell shade can block as much as 62% of heat loss through a window pane.

For more energy efficiency tips, visit our website

www.gcea.coop

Knowledge Is Power

Understanding how electricity is used in your home is the first step in reducing your electric bills. One way to learn how electricity much your appliances and electronics use is with a Kill-A-Watt monitor. Simply plug the Kill-A-Watt monitor into a wall socket and then plug your appliance into the monitor. The monitor will measure power consumption by the kilowatt hour. By programming in GCEA's current residential rate of 11.5 cents per kilowatt hour, you can project costs by the hour, day, week or month.

Up to 66% of that power is being consumed while your TV is turned off.

You might be surprised by what you learn. Many of today's electronics use power even when you aren't using them. For example, if you have a plasma television connected to a cable box and DVD game player, the system will draw electricity even when you are not home. The cost can be significant. According to a recent study by the Natural Resources Defense Council, cable boxes can consume as much energy as your refrigerator. Up to 66% of that power is being consumed while your TV is turned off.

Kill-A-Watt monitors may be borrowed from your local library.



For additional information, call Old Rock Library in Crested Butte at 970-349-6535; Ann Zugelder Library in Gunnison at 970-641-3485; or John Wagner Public Library in Lake City at 970-944-2615.



GCEA elves fulfill a local family's Christmas wishes through the Adopt-A-Family Program

Home Safety Checklist

Protect your family from fire and other electrical hazards by using this short checklist.

1. Check the wattage of all bulbs in your lights.

- Are the bulbs the recommended size for the fixture?
A bulb with excessive wattage may overheat and cause a fire.

2. Check all lamp cords and extension cords.

If you answer NO to any of these questions, you may have a safety or fire safety hazard.

- Are cords out of walking areas and free of furniture?
- Are cords in good condition without cracks?
- Are cords unwrapped? Tightly wrapped cords can lead to overheating.
- Are you using extension cords? Extension cords are not a permanent solution. If your house does not have enough receptacles, you should have an electrician install more.

3. Check all wall outlets and switches.

If you answer NO to any of these questions, you may have an unsafe wiring condition.

- Do all outlets and switches work properly?
- Are all outlets and switches cool to the touch?
- Are all outlet and switch cover plates in good condition?