

My HOMETOWN POWER

**MURFREESBORO
ELECTRIC**
D E P A R T M E N T

Murfreesboro City Schools boost energy efficiency

The teachers at Murfreesboro City Schools have always stayed on top of the latest research and strategies for educating prekindergarten through sixth-grade students. But over the last several years, administrators have been working to put Murfreesboro schools ahead of the curve in an area some might not expect: energy efficiency.

“Keeping our focus on improving energy efficiency is critical since the dollars spent in this area are a major portion of our overall budget,” says Gary Anderson, assistant superintendent for administrative and support services. “Some of our HVAC equipment was in excess of 35 years old, and we were spending many hours repairing and replacing parts.”

Not only does making the city’s schools more efficient save money that can be put toward improving other aspects of the system, but it also both improves the learning environment for children with special needs who are sensitive to old-style fluorescent lights and helps all students learn important lessons about saving energy early.

Smart investments

Efforts to improve the school system’s energy

usage began in 2010 but faced some challenges right off the bat. Capital dollars usually went toward building repairs and maintenance. Even if they did manage to fund those upgrades, the schools didn’t yet have a way to track their energy usage to see if they had actually reduced costs.

To solve these problems, they turned to Tennessee’s Energy Efficient Schools Initiative (EESI). EESI loans and grant money made it possible for Murfreesboro schools to start making improvements, beginning with a new dedicated heat recovery chiller/boiler HVAC system for Scales Elementary School in November 2010.

The school system was also able to keep the cost of its lighting and other upgrades down by working with MED to take advantage of TVA’s EnergyRight Solutions for Business program, which offered financial incentives for energy-efficient improvements to schools across the city.

Over the following years, the city schools continued to put EESI grant money toward improvements like high-efficiency, two-lamp fluorescent fixtures that reduced energy consumption in seven schools by half and new HVAC systems at Bellwood Discovery School,

Hobgood Elementary and Reeves Rogers, which improved the circulation of fresh air in all classrooms.

These upgrades culminated with the installation of an online energy management system and meters that allow the schools to monitor electricity usage in real time, helping identify areas of success and where there’s room for improvement.

Murfreesboro City Schools also received equity capital market loans that made further improvements possible. Old halide lighting systems at all 12 schools were replaced with new fixtures that use less energy and have built-in motion sensors to ensure they turn off when no one is in the room. They were also able to replace out-of-date chilled water and hot water optimization systems at Northfield Elementary, as well as old HVAC systems at Bellwood Discovery School.

“As a public school system, we are always looking at how we can improve student learning and use taxpayer money wisely,” says Dr. Linda A. Gilbert, superintendent of Murfreesboro City Schools. “The comprehensive approach this district has taken toward energy has improved both of those areas of focus.”

continued next page, see energy efficiency

16TH ANNUAL

EARTH DAY 2017

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energy efficiency, continued from front

A more efficient future

While Murfreesboro City Schools have made great progress toward improving the system's energy efficiency, there is still much more work planned for the future. As more EESI funds become available, the school system plans to look into additional investments that have succeeded in other districts, such as solar hot water heating, low-flow water fixtures, more efficient kitchen equipment, energy education and more.

"Murfreesboro City Schools is a great example of energy management success and collaboration with EESI," says Paul Cross, executive director at EESI.

One way the schools' energy initiative may have already had a long-term impact is by engaging children with energy efficiency. As part of the project, principals encouraged each classroom to name a student who would be "Energy Czar" for the week, putting them on the lookout for ways the class might be wasting energy.

"Equipment alone is not the complete answer," says Anderson. "Getting students involved in watching for waste and actively taking steps to prevent it is crucial to this plan being a success."

For more information about Murfreesboro City Schools energy initiatives, visit energy.cityschools.net. To learn more about EESI, visit www.tn.gov/eesi.

JOIN OUTDOOR MURFREESBORO FOR THE FIRST SPRING BEE COUNT



Outdoor Murfreesboro is calling on all nature lovers to visit the Wilderness Station this April to take part in its first Spring Bee Count.

Why is it important to count bees? While most people just see bees as an annoyance, they actually have an important part to play in the environment.

"A lot of people think bees are pests, and when they see one, they automatically think it's going to sting them," says Heather Mullican of Outdoor Murfreesboro. "That's not necessarily the case, so we're hoping to educate people on that and the role bumblebees have as pollinators."

Bees are crucial to our food supply because many crops we rely on require pollination by birds or insects. Unfortunately, bee

populations have declined in recent years, which is why it's important to gather information about what type of bees there are in Murfreesboro and where they show up.

The Spring Bee Count is part of the Citizen Science program, which encourages the public to think like scientists in their own backyards. After meeting at the Wilderness Station, participants will split into groups to look for bees and take pictures of the ones they spot.

Afterward, they'll try to identify the type of bee in each picture and upload the photos to the Bumblebee Watch website, which uses a dichotomous key to make sure each bee is correctly identified.

"That information will

go to scientists who can determine how well our bee populations are doing and if there's something we need to do to improve them," says Mullican.

The process is simple and something all Murfreesboro residents can do to contribute data on bees in their area.

"We're going to give people the tools and explain how to use them, but anyone can take pictures and upload them to the site on their own," says Mullican.

The Spring Bee Count will take place at the Wilderness Station in Barfield Crescent Park on Saturday, April 8 from 12:30-1:30 p.m. For more information, contact Heather Mullican at hmullican@murfreesborotn.gov or call **615-217-3017**.

16TH ANNUAL EARTH DAY 2017

NOTHING WOULD STING MORE THAN BEE EXTINCTION

Student Contest



Enter the Murfreesboro Earth Day Celebration student video contest

Create a project and record an engaging 3-5 minute video that explores the theme "Nothing would sting more than bee extinction." Student projects can range from creating a bee sanctuary to petitioning legislators to save the bees. Document your project and you might win!

This contest is open to all Murfreesboro City and Rutherford County school students. Contest rules and forms can be found at cityschools.net/2017-earth-day.

The 2017 Earth Day Celebration will be held April 22nd from 10 a.m.-2 p.m. on the Historic Murfreesboro Square.



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