

D211 POST: DISTRICT 211 ADDS SOLAR PANELS TO ENERGY EFFICIENCY



For many years, Township High School District 211 has been improving its overall energy efficiency. The District has transitioned light fixtures from traditional florescent to LED lighting during various renovations, and it has recently begun adding alternative fuel propane buses to the District's 160-plus vehicle fleet. Now, the District can add solar power to its green initiative. On February 28, the District will activate solar panels that have been installed on the roof of the Higgins Education Center.



In late 2019, the Board of Education approved the purchase of 62 Hanwha 345W solar panels. The panels are designed to be modular which allows the District to move them to other buildings or move them for maintenance. The panels were purchased at a cost of approximately \$50,000. Following installation, the District became eligible for nearly \$22,900 in solar energy credits and is additionally expected to receive a \$5,000 rebate from ComEd. Through energy cost savings, the panels are expected to deliver a complete return on investment within 10 years.

Once activated, the Higgins Education Center will draw power from the panels while reducing its overall usage from traditional power sources. The panels will not store power.



DISTRICT 211 REACHES \$9 MILLION IN ENERGY COST SAVINGS



Simple tasks such as turning off computers, monitors, and speakers before leaving the classroom each day have made a significant impact

| on energy conservation.

As District 211 continues its energy saving efforts into the new year, data from utility invoices showed the District saw its highest energy cost savings within an eight-year period.

With a 31 percent reduction in natural gas usage and 32 percent reduction in electricity consumption, the District has saved more than \$9 million. From December 2011 through November 2012, the savings totaled more than \$1.2 million.

“We rely on cooperation of everyone in the District to be mindful of shutting things down, and that counts for about 25 percent of our savings,” said Reece Thome, District 211’s energy manager. “The other 75 percent comes from how we operate our heating, air conditioning, and lighting systems. Then as equipment wears out, we replace it with more energy-efficient alternatives.”

The eight-year data measurements date back to November 2004 when the District compiled baseline information to compare each year’s energy savings. Thome said it’s the little things that help keep energy costs down. However, there is always room for improvement.

Extended periods when school is not in session key times to turn off electrical equipment. District staff has been asked to turn off unnecessary electrical equipment during winter and spring breaks, such as microwaves, coffee makers, water coolers, and to clean out and unplug refrigerators. Thome said those seemingly unimportant moves contribute thousands of dollars in savings toward operational expenses. Those dollars can then be used for the benefit of our students.

“Even though the District built additions to several of our schools a few years ago, including Schaumburg, Conant, Hoffman Estates, and Fremd High Schools, we have actually decreased our electricity and gas use,” Thome said. “We also have added more electrical equipment within the District, such as computers. If you think about it, that is pretty amazing. To increase the total size of our buildings by about 190,000 square feet within the last five to six years, add electric and gas consuming equipment, and still reduce our actual consumption of both resources by approximately 30 percent. What a tribute to our staff for participating in these conservation efforts.”

Thome said these numbers are a reason to celebrate. Yet, continued energy savings methods from District faculty, staff, and students will continue throughout the year in hopes of maintaining or lowering future energy costs.

“Every person in District 211 has a reason to celebrate their part in conserving,” he said, “and to celebrate being a part of not only our District’s financial stability, but also our carbon footprint.”

FREMD, CONANT EARN ENERGY STAR AWARDS

Modifying old habits takes time to get used to and might not be immediately noticeable, but thanks to the efforts from District 211 faculty, staff, and students, tiny changes have amounted to something huge. Since 2004, there has been close to \$8 million in savings for electricity, heating, and cooling costs district-wide.

That savings has helped the District earn the Environmental Protection Agency's (EPA) Energy Star Certification for William Fremd and Conant High Schools for a second consecutive year. Buildings that are the most energy-efficient and are nationally ranked within the top 25 percent in the country are given this recognition. It's based on the EPA's point system, which is determined by data submitted through software called EnergyCAP Professional.

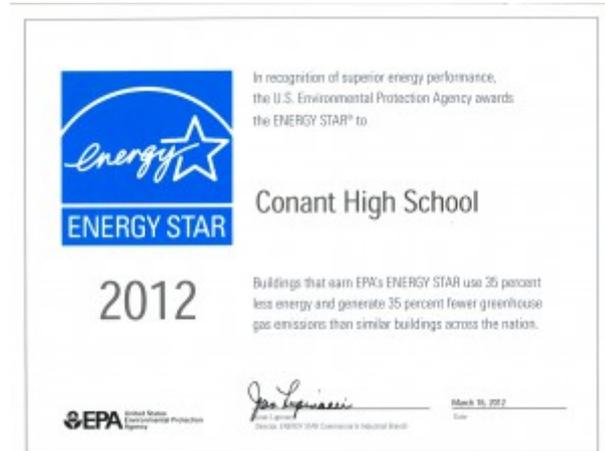
"Both Conant and Fremd High Schools have been rated over 75 points," said Reece Thome, District 211's energy manager. "When we received the first awards, there were only 13,000 buildings in the United States with the title, and the significance of that it made me think, 'Holy cow, there are probably 13,000 buildings or more in Cook County alone.' From a national perspective, it's pretty impressive."

Thome said everything is tracked in the software and sent to the EPA for evaluation. From there, a certified engineer reviews the data, and comes to the building to take readings of light levels and air quality.

Part of the evaluation process is to ensure buildings are in proper working order, meaning they are not overly dark to save money on electricity, and ventilation systems are on to keep air fresh.

Even though the District has grown over the years, Thome said it's using 22 percent less electricity and 18 percent less natural gas since 2004 when it entered a partnership with Energy Education, Inc., which helps implement comprehensive organizational behavior-driven energy conservation programs. From January 2011 to December 2011 alone, the District saved roughly \$1.4 million.

Thome said other schools in the District are close to getting Energy Star



Certification, and he continues to monitor lighting, heating, cooling, humidity control, mechanical and appliance systems, landscape watering practices, and utility cost tracking, analysis, and projection. However, he said the District's success in energy conservation comes from people and their willingness to change their habits.

"Our accomplishments would not have happened without the cooperation of everyone," Thome said. "All staff have embraced the notion of doing their part to reduce use. Our greatest returns come from the diligence and care of the professionals that work in our maintenance departments. They have been right on top of all aspects related to energy conservation."