



Saving Energy, Saving Money, Helping Our Communities

Investing in Energy Efficiency

Saint Mary's School

Educating Students and Saving Energy in the Heart of Phoenix

Saint Mary's School in Phoenix has been a part of the city's history since the school opened in 1917, only five years after Arizona became a state. Founded by the Sisters of the Precious Blood, the first school consisted of four boys and 10 girls in a dedicated classroom at St. Anthony's elementary school. In 1920, Saint Mary's moved to its own one-story home located on East Monroe Street. Over the years, it has seen many changes and much growth.

The rapid development of downtown Phoenix caused Saint Mary's to halt its growth on the inner-city campus, and, in 1988, the former campus was razed to make room for the Arizona Center. The school moved just two miles north to its present location at Third Street and Sheridan to what was a former University of Phoenix campus, where it continues to grow. In 2007, the school completed the Virginia Piper building, which houses fine arts classrooms, computer labs, and the 275-seat Wiegand Auditorium.



Credit: Saint Mary's School

Over the past two years, St. Mary's has done much to reduce its energy consumption. It replaced fluorescent lighting with LED lighting throughout the school and installed window screens to cut the heat from the hot summer sun, enabling them to reduce air conditioning use. The LED lights also significantly increased the lumens in the school, meaning fewer fixtures are now needed to provide the same or better lighting.

The estimated annual savings for the school are \$25,000 in electricity costs and \$3,000 annually in avoided costs for replacing bulbs and ballasts on the fluorescent lights. With the money it saves, the school is "working to provide scholarship dollars to make our school affordable and accessible to all."

Augspurger Komm Engineering, Inc.

Engineer Energy Savings



Augspurger Komm Engineering, Inc., a small business that employs 20 people just south of the airport in Phoenix, is a consulting engineering firm that specializes in forensic analysis and expert witness testimony. The firm conducts highly technical work that requires inspection and laboratory facilities, which means it needs space.

The owners of this small company are always looking for ways to be more efficient. As engineers, they understand the value of installing more efficient products. Because of this, they utilized an Arizona Public Service (APS) energy efficiency program to improve features of their work space. Through this program, they upgraded interior and exterior lighting, improving security and working conditions, while saving an estimated 25 percent on lighting costs. The decrease in their use of energy means the dollars to maintain their existing infrastructure can go further.



Credit: John Wesley Miller Companies

John Wesley Miller Companies

Where High Tech Meets Historic

John Wesley Miller Companies provides full-service home remodeling and is also a green custom home builder, specializing in energy efficiency, environmental building, and use of renewable energy. It is one of four builders selected by the U.S. Department of Energy to develop zero-energy homes.

The Armory Park Del Sol neighborhood is nestled in the historic Armory Park neighborhood in the heart of Tucson and is an excellent example of infill done right. The development consists of energy efficient homes by developer John Wesley Miller. Two of the homes, including the VISION House®, are net-zero energy homes, meaning they use very little energy and generate at least as much energy as they need through rooftop solar modules. The VISION House® has a preliminary Home Energy Rating System (HERS) of -17. HERS is an index or scale of energy efficiency in homes; the smaller the number the more efficient the home.

In addition to focusing on energy efficiency in this development, these homes also have the walkability that is important for keeping our emissions and energy use down, plus for providing a healthy lifestyle. Armory Park is ranked number five out of the 130 highest scoring neighborhoods for walkability in Tucson. The homes also have wide sidewalks and doors that accommodate people of diverse abilities. While the homes tend to be in the higher-end market, many of the ideas are applicable to homes of varying prices, including existing homes. From rainwater harvesting to good insulation, these are some basics that can help anyone reduce electricity and water use.

InLine Electrical Resources

Small Projects, Big Impacts

InLine Electrical Resources (IER) provides electrical contracting services and efficient electrical resources. The company has completed thousands of projects for a variety of clients, including commercial, industrial, schools, and more. IER focuses on energy efficiency measures, explaining that conservation should be implemented prior to any renewable energy efforts as efficiency measures cost much less and have a much greater effect than renewable energy alone.



From 2009–2013, the company completed more than 2,500 projects. The upgrades from those projects have saved more than 160 million kilowatt-hours (kWh) of electricity, which is enough electricity to power more than 11,000 homes for a year. For 2013, this meant 80 million gallons of water savings and 335 thousand tons of carbon dioxide savings. In February 2014, Tucson Electric Power (TEP) recognized IER with a BrightEE award for its great energy efficiency work.

Energy Efficiency Delivers

Big Savings and Less Pollution

Energy efficiency programs have produced huge benefits for Arizona. The energy savings from efficiency measures installed through programs at Arizona Public Service and Tucson Electric Power from 2008 to 2013 saved 2,770,400 MWh in first-year savings. During this time, Arizona customers received more than \$900 million dollars in net benefits, and the utilities reduced carbon dioxide emissions by nearly 15.6 million metric tons. Salt River Project reported annual energy savings of 626,600 MWh from energy efficiency programs implemented during its 2013 fiscal year. These are big savings for Arizona businesses and residential customers – and for all of us.



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