



Duke Energy and YMCA Camp Thunderbird Environmental Partnership

Sunlight on Education

In August 2009, Duke Energy donated 16 solar panels to the YMCA Camp Thunderbird to provide children the opportunity to observe solar energy being generated. Teachers and educators from around the region can take advantage of this demonstration project by accessing live solar monitoring results on Duke Energy's Web site. They can use the data to create innovative programs that teach children about solar energy production and sustainable practices.

The solar project is a flagship example of Duke Energy's ongoing environmental partnership with Camp Thunderbird. In 2006, The Duke Energy Foundation provided funding for a new 10,500 square-foot open-air pavilion. The Duke Energy Pavilion, overlooking Lake Wylie, provides an ideal place for campers and students to participate in environmental programs throughout the year. Duke Energy employees also devoted hundreds of volunteer hours to help design and construct hiking trails across the Camp Thunderbird campus.

Highlights of the Solar Project

- The 16 175-watt photovoltaic panels, manufactured by BP, are connected in a series and provide 2.8 kilowatts of solar energy to the camp's 72-year-old recreation hall.
- Using an inverter, the panels' DC electricity is converted to AC electricity. The AC side of the inverter is connected to the building's electrical system.
- Output from the panels is equivalent of about 10 percent of the electricity needed for the 5,300 square-foot facility.
- Live monitoring results are available online and demonstrate how sunlight is converted to energy.
- Data collected serves as a valuable educational tool for campers and the public, and helps Duke Energy study solar power as a viable renewable energy source.

Live Monitoring Results Available:

If you're an educator or interested in learning more about solar renewable energy, take advantage of the live monitoring results available to the public. To access the interactive data, visit www.duke-energy.com/environment/renewable-energy and click on **Solar** under Duke Energy Initiatives.

This solar demonstration project is a cooperative partnership between Duke Energy, Camp Thunderbird YMCA and Energy Wise Solutions to help educate our youth on environmentally friendly renewable energy sources.