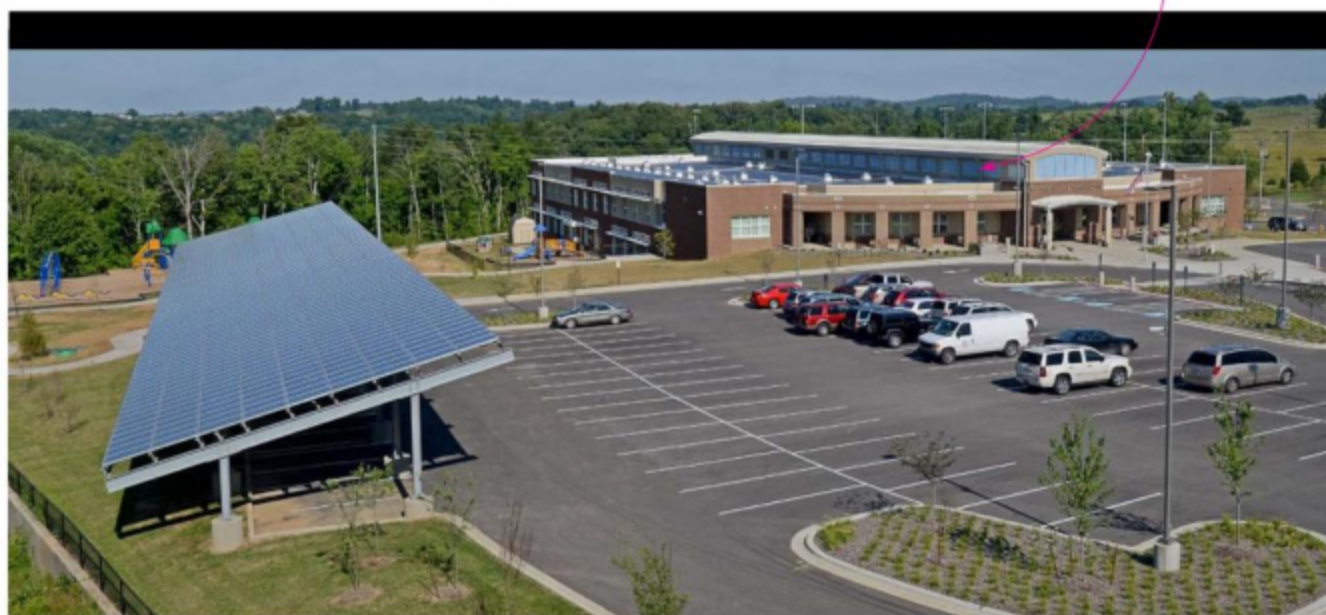


2013 EDUCATION PORTFOLIO

Warren County Public Schools Richardsville Elementary School

Clerestory windows at Richardsville Elementary provide active daylighting throughout the net-zero school.



It's the first net-zero-energy school in the country, and Kentucky is intent on cloning its success
By Julie Schaeffer

In 2012, the Tennessee Valley Authority cut **Warren County Public Schools** a check for \$37,227.31 because of its energy-producing, net-zero school, **Richardsville Elementary School** in Bowling Green, Kentucky. As the first net-zero-energy school in the country, the 550-student, 77,466-square-foot Richardsville Elementary pays for itself and then some as a result of numerous sustainable features, including a high-performance building envelope, daylighting, geothermal heating and cooling, and solar power, says **Jay Wilson**, energy manager for Warren County Public Schools.

As a result, the \$12.1 million project, completed in 2011, operates on an energy use of 18.2 kilo British Thermal Units (kBtUs) per square foot per year. That's much lower than the 25 kBtUs the federal government requires for a school to be deemed net-zero, says the school's design architect, **Kenny Stanfield** of **Sherman Carter Barnhart**.

But Richardsville Elementary isn't the only school in the district with big energy goals. The 133,000-square-foot **Turkey Foot Middle School** in Edgewood, Kentucky, was also designed to be net zero. The \$25 million project completed in 2010 uses similar

strategies as Richardsville, including solar panels that will offset a significant portion of the school's energy use with the goal of achieving 100 percent net-zero energy in the future.

Both of the schools' efforts are part of a statewide initiative to manage energy use called the **School Energy Managers Project**, a partnership between the Kentucky School Boards Association and the Department for Energy Development and Independence. Funding under the American Recovery and Reinvestment Act has helped these efforts by giving \$1.3 million to Richardsville and \$2 million to Turkey Foot for their projects.

"By reducing the amount of energy we use, we can really cut back on spending, which means there's more money to spend on the classroom—teachers, equipment, and programs," says **Ron Willhite**, director of the School Energy Managers Project, although he notes net zero is about much more than building green. "No matter how good we make the buildings, without the support of occupants, they wouldn't be a success." **gb&d**

Richardsville Elementary's \$2.4 million solar energy project, consisting of 2,000 panels on the roof of the school and another 700 on the roof of the parking structure, helps the school draw 75 percent less energy from the grid than traditionally powered schools.