



Ontario Schools - Solar Pool Heating

HEI Engineering Group completed a solar collector project at the Ontario Local School District in Mansfield, Ohio. The school district has already applied wind turbines to a couple buildings and wanted to further integrate a renewable energy system such as solar.

At the high school, HEI designed a piping system with 15 outdoor panels and 2 indoor solar tanks to heat the pool water. Each panel consists of solar collectors which use glass tubes to absorb the sun's energy which is then converted to usable energy. Heat pipes within the glass tubes transfer heat up to an insulated copper header through which water is circulated.

When conditions are suitable for solar heating the pool water, a pump lifts water from the basement solar tanks to the panels on the Natatorium roof. When conditions are not suitable for solar heating, a typical gas-fired boiler system is used to heat the pool water.

Solar collectors are ideal for cold regions such as Ohio and for high temperature applications, both domestic and heating hot water.

