

## **Best Practices**

### *Green Schools in Manheim Township District*

By: Dr. Kevin Singer, former-superintendent, Manheim Township School District

With apologies to Kermit, it *is* easy being green. More than that, it's the right color to be. Green construction is the current buzzword for the building industry, and green collar jobs are surpassing gold collar and blue collar as the jobs for the future. Why the change? The price of oil, the diminishing supply of natural resources, the geo-political climate of the world, the prevalence of greenhouse gases and the advent of global warming have all forced us to consider what we are doing to our environment and how to wisely use our renewable resources.

Thirteen years ago the Manheim Township Board of School Directors and Superintendent Sharron Nelson jumped on the green bandwagon. Of course, back then, the parade had not yet started. These visionaries decided that green energy made sense from both ecological and financial perspectives.

The following Green Projects were implemented or are underway in the District:

- **Neffsville Elementary**  
The District built its first green project in 1995 when it installed a geothermal well field to heat and cool the Neff Elementary School. Since then we installed geothermal well fields in two other elementary schools. The well fields are used to supplement our external energy needs for heating and cooling the school buildings, reducing our energy consumption by as much as thirty percent. Ours' was the first geothermal school project in the state; the practice has now become commonplace.
- **Manheim Township High School**  
With our high school project, we have raised the bar. Using a geothermal well field to provide both heating and cooling, this 440,000 square foot facility has neither a boiler nor a chiller, with most of the temperature control coming from the earth. The district's expense is for the circulation pumps which distribute glycol chemical in the radiant floor tubes and for operating the heat pumps. Other energy savings features include: super-insulated walls and windows, specialized lighting controls, heat pumps and radiant heating and cooling.
- **Pavilion**  
On our next project, the Pavilion, we will raise the bar even higher. Designed to be a zero-net energy facility, we are exploring the use of photo voltaic cells, a green roof, use of gray water, a wind turbine, tight construction, and use of our existing geothermal well field to create a building that does not require additional energy to run. Being built in cooperation with the Manheim Township Education Foundation, the construction will not use tax dollars.

To sort through the many potential energy savings, we follow the 3-5-7 rule. If a system pays for itself within three years, we include it. If it takes five years to pay for itself, a judgment call is made concerning its inclusion. If it takes seven years or more, it is not included unless there is an exceptional reason to do so.

In 1908, President Teddy Roosevelt commissioned the world's first green energy summit. One hundred years later, the Manheim Township School District is living his insightful charge: "We must handle the water, the wood, the grasses so that we will hand them on to our children and our children's children in better and not worse shape than we got them."

We think it's the right thing to do, and there's no better place than an institution of learning to teach our children that it's easy being green.