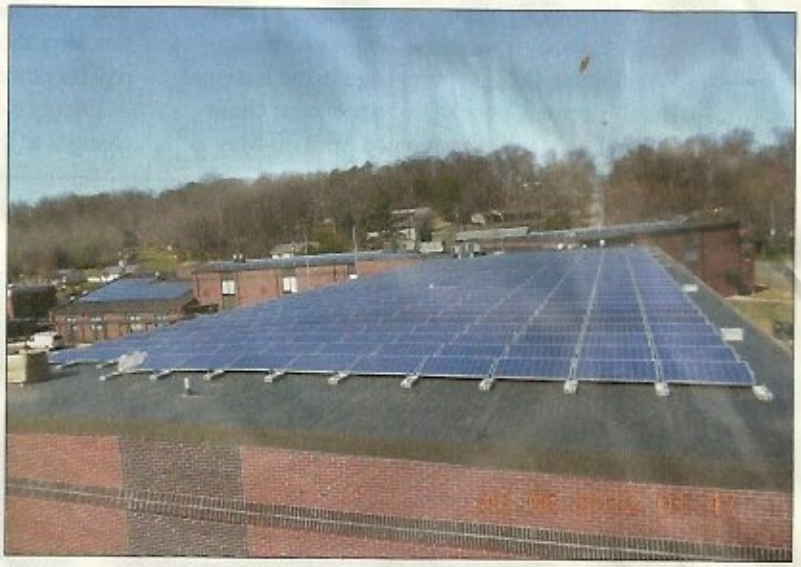
School sites make electricity from the sun

Solar, a truly green form of energy, has arrived. This energy, which radiates from the sun, is available in any climate — in hot weather or cold. And the most amazing results occur once solar panels are installed. Panels rest inconspicuously on rooftops while electric power is silently made from pure sunshine and revenue is generated for their owners!

Hawkins County Schools became the first school system in the state to utilize the Generation Partners Program from the Tennessee Valley Authority to install solar power generating systems with absolutely no financial investment. With the assistance of TerraShares, Hannah Solar, Holston Electric Cooperative, Powell Valley Electric Cooperative, Comer Electric and Precision Electric, Hawkins County Schools was able to install one 200 kW system and two 100 kW systems at three school sites. Once everything was operational, the school system began receiving compensation from TVA based on the amount of electricity generated at each site.



The 200-kilowatt system on the roof of Church Hill Middle School utilizes energy from the sun to generate electric power. Hawkins County Schools,which has no funds invested, receives compensation based on the amount of electricity generated.

After the three original school installations were under way, the Generation Partners Program guidelines changed, allowing only 50 kW systems. In the next eight months, Hawkins County Schools will be moving forward to install as many 50 kW systems as possible, which will generate additional power and revenue for the school system.

Besides generating power, the solar installations are adding new dimensions in learning and teaching opportunities. The Facility and Maintenance Department for the school system has designed and built a special portable platform that holds an actual solar panel, giving students the opportunity to see and touch a solar panel. The display also contains information on the amount of power being generated from the solar panels on the roof of the school, the number of homes that could be powered by those panels and the amount of coal that is saved each year from the power that is generated by the solar panels. As a "hands-on" tool, the display not only allows students to actually see specific examples of renewable energy, but it also gives classroom teachers a unique teaching tool that is "real-world." The solar display can be utilized for both math and science classes and serves as an important learning tool to stimulate interest in the growing industry of renewable energy.

Providing clean energy is only one of the many beneficial aspects of using a renewable energy source. The solar panels have a 25-year lifespan and require very little maintenance. Although rooftops are the prime location for the installation of solar panels, ground-mount systems and "shade

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School sites make electricity

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structures" provide alternative locations and easier installation. Hawkins County Schools is considering the installation of both ground-mount panels and shade structures in the near future. Because each allows for a more "visual" system, this will also assist in providing additional learning environments for students. Additional shade structures can provide opportunities for "green ideas" from students such as capturing rain water for use in gardens or landscape areas. The solar shade structures could provide an area for additional recycling containers that would help reduce the amount going to a landfill. The ideas of incorporating solar energy lessons into the classroom are endless.

There is no single "low-hanging fruit" that will generate significant revenue dollars for the school system by completing one or two items; it takes the successful completion of several projects to lead to a substantial source of revenue. However, for a solar project to be successful, a school system has to have the support of all parties — including the school board, the director, supervisors, principals, teachers, maintenance personnel and custodians.

Another important group that holds a vital key to the success of the venture is the students. It is with their involvement and cooperation that learning how to conserve energy for the future becomes a unique experience. Each project that allows a school system to save money can be turned into an educational tool not only to assist teachers in their everyday job of teaching but also to teach students about real-world opportunities that are created from both involvement and concern for the environment. These are the true keys to guiding student success.

The solar projects for Hawkins County Schools have provided many opportunities for stimulating student learning and thinking for years to come. Who would have imagined that the rural Hawkins County school system would be leading the state in the conception, installation and generation of solar energy? This opportunity became a reality with the vision, the presentation and the leadership of the idea from the Hawkins County Schools Facilities and Maintenance Department and director, the Hawkins County director of schools and the Hawkins County School Board. With absolutely no money invested or spent, the solar project of Hawkins County Schools is bringing much-needed revenue in to a growing school system that encourages personnel and students to think "outside the box."

The best is yet to come — and the much-needed revenue will keep coming in for Hawkins County Schools as long as the sun continues to shine.

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