

Money-Saving ENERGY

Running the Electric Meter Backwards Without Changing Lifestyles

By Melanie Hess

Diminishing natural resources and high electricity costs leave North Texans on a quest for new options and alternatives. Solar power may seem like old news to some, but with recent advancements, the natural energy system may be a viable opportunity for individuals seeking to save money or go green.

"With solar power, you are reducing your bill by producing more power than you use," said Ken Whiteside, director of solar training with Ontility, a Houston-based solar company.

By connecting solar power panels to a home or businesses' typical utility system, Whiteside claims users are essentially running their electric meter backwards when the solar panels are generating more energy than the building is using. Energy savings from solar panels generally range from 30-90 percent of energy used, depending on the size of the building.

In order for solar energy to work, it must be converted into AC before it can be supplied to a building. Formerly, this process was much more complicated and expensive than it is today. Latest trends take the solar conversion process a step further with AC modules. With these modules, a microinverter, mounted on the system module, severely decreases installation time.

"They come ready to go," Whiteside said. "The process is no more complicated than wiring a clothes dryer, expanding the number of people who can do safe and effective installations."

As a result, the cost of solar power installation, generally the most pocket-book heavy part of the process, continues to decrease.

Whiteside said a need for major lifestyle change in order to go green and save money on the energy bill is a common misconception about using solar power.

"Lifestyles aren't affected at all," he said. "The system is connected to an electrical grid, and the energy the solar system generates offsets power drawn from the power company."

Natural energy expert and Director of Engineering at Collin College, Dave Galley, said the growing use of solar power isn't limited to the home. He believes solar photovoltaic (PV) arrays will be the future favored way to power or charge electric vehicles, rather than conventional fossil fuels. In fact, participating in solar energy technology is a great opportunity for someone looking to change or advance their career.

"Sustainable living and the use of alternative energy resources will be key parts of the future professional engineering world," Galley said.

While Whiteside says there is certainly a demand for solar power and

Hands-on solar power installation courses, offered each semester through Collin College, are just some of the opportunities for electricians and interested parties to receive a deeper education on this topic.

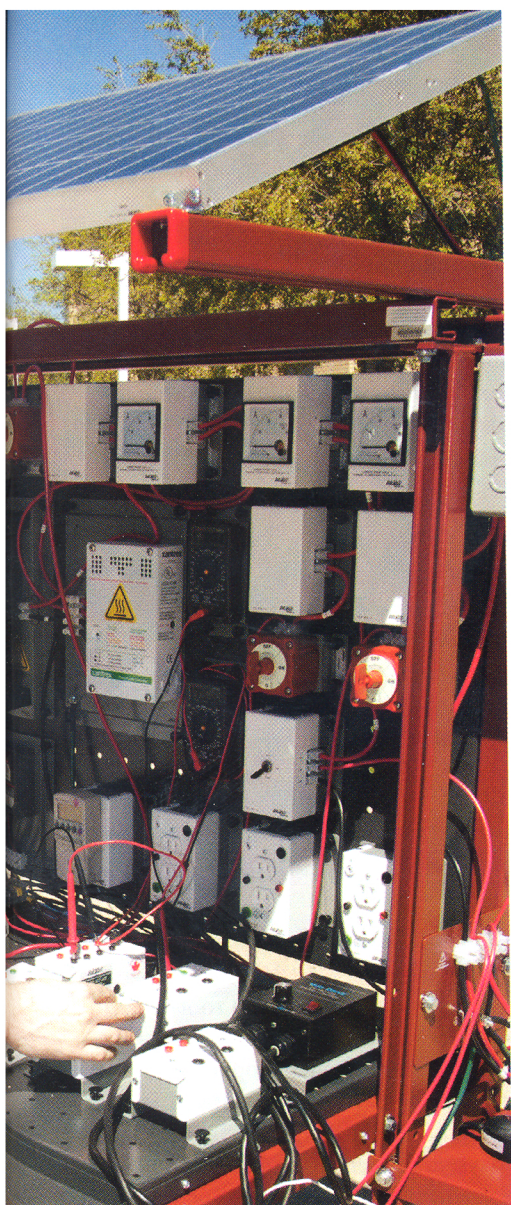
installation in the North Texas area, the area hosts fewer individuals working in the industry than most other Texas metropolitan areas. However, Galley said students in his Alternative Energy Perspectives and Fundamentals of Solar Energy courses are very interested in pursuing the alternative energy industry and putting roots in and around Collin County.

Commercial companies can also benefit greatly from installing a solar power system, as businesses have the option of selling all power generated by solar installations back to the utility company. Whiteside equated it to renting the roof to the utility company and said financial models can be run to show return on investment.

On a national scale, Whiteside



PHOTO BY NICK YOUNG, COLLIN COLLEGE PHOTOGRAPHER



said the U.S. Department of Defense is very interested in solar power. With centralized utility plants, the country is much more vulnerable. Solar power creates a more robust grid, reducing the centralization of power and making the U.S. less vulnerable to attack.

Growing uses of solar power make job prospects look favorable. "Trained solar professionals can look forward to an array of jobs, such as residential Solar PV installation championed by local companies and smart grid applications being currently deployed by our industry partners and advisory board members," Galley said.

Since a certified electrician must be part of the installation, adding this specialization in a growing industry can be a great resume booster for an electrician. Hands-on solar power installation courses, offered each semester through