pieces of equipment extend the periphery of the grid and get us ready for the next step," Geschickter says.

That's where companies such as QuadLogic Controls Corp., a Long Island City, N.Y.-based manufacturer of smart meters, come in. Phil Fram, vice president of sales and marketing, says his company is gearing up to take advantage of the market.

"We are focused on multi-tenant buildings with our meters," Fram says. "We allow building owners and superintendents to charge for electricity use in a much more precise fashion."

To meet the coming need, Fram says his company is focusing on upgrading its hardware in 2011, with the anticipation of expanding its software features in 2012. The upgrade in hardware will allow QuadLogic's meters to be prepared for two-way communication capabilities that will be critical moving forward as the smart grid develops. Then comes the next step: Upgrading the software inside the meters to allow them to be even more functional in the future.

Tony Paine:

"WE BELIEVE THE SMART GRID WILL REALLY TAKE OFF ONCE THERE ARE STANDARDS FOR ALL ASPECTS OF THE GRID."

Petra Solar manufactures photovoltaic panels that are mounted on electrical poles and are used to increase the amount of renewable energy that can be added to the smart grid. Steven Gillespie, program manager for Petra Solar, says the biggest investment his company has made internally is in Omnify's PLM software. The increase in productivity for the Plainfield, N.J.-based manufacturer has dramatically accelerated the speed with which the company produces its products.

"We have cut down the amount of time it takes to make an engineering change to our products by 75%," Gillespie says. "We've cut down our product development time from 18 months to 9.5 months. It's been revolutionary to the way we do business."

The company is also working to create a distributed system of solar energy, says Mary Grinkas, vice president of communications for the company. Instead of building a solar farm, a distributed system will rely on easier two-way communications, leading to real-time pricing—a hallmark of the advances the smart grid will allow.

Building IQ's Zimmerman says his company is preparing for the smart-grid build-out by hiring more software developers and sales people in the United States. He believes the automation of building energy control will take off once people understand how much human error software can eliminate.

"Nearly 20% of all energy use in this country comes from commercial buildings," Zimmerman says. "We need to be more conscious about what we're using, and our software helps building managers do that. We're gearing up to take advantage of that market as it continues to grow."

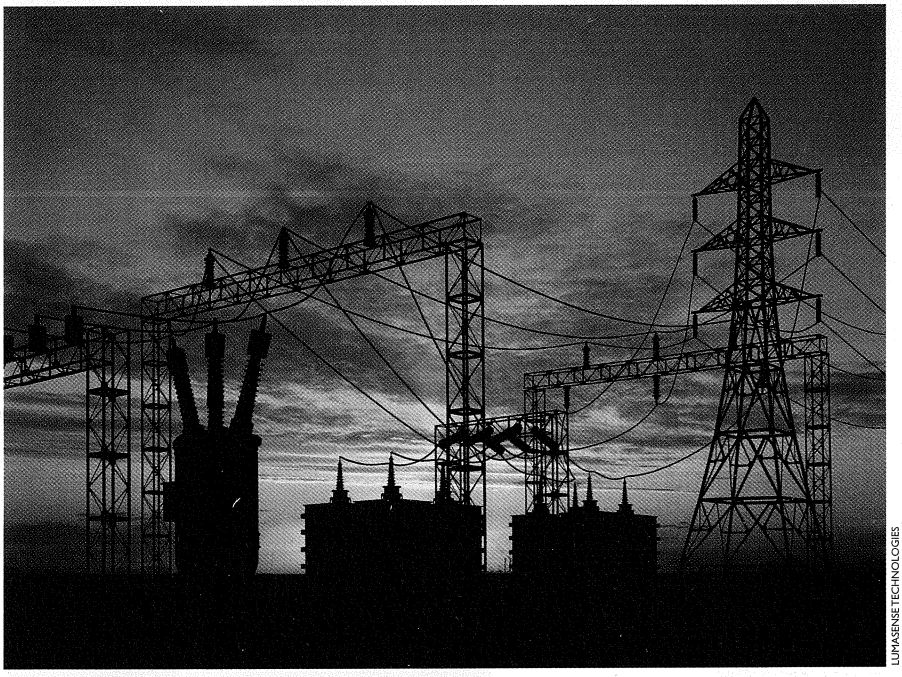
Outward Focus

Jesse Berst, chief analyst for SmartGridNews.com, wrote an article discussing the future of the smart grid. He says all of the focus on metering thus far has ignored the market where the real money exists: on the supply side.

"The area where there will be the growth will be on the sensors and devices that help utilities deliver electricity more effectively," Berst says. "There will be sensors everywhere, from distributor generation throughout the entire grid."

Tony Paine, president of Kepware Technologies Inc., which is focused on creating temperature controllers for the power-management industry, says his company is focused on helping develop standards for two-way communications devices. He says he believes such a focus is instrumental in bringing the smart grid from fantasy to reality.

"We believe the smart grid will really take off once there are standards for all aspects of the grid," Paine says. "We



LUMASENSE TECHNOLOGIES

The Great Blackout of 2003 was the most recent event that revealed how outdated and flawed the electrical grid in the United States is. Manufacturers are now working on creating smart-grid technology that will help update transmitters, transformers and other supply-side portions of the grid.