



## Con Edison, Sarnoff Engineers Earn Global Honor For GPS-Based System to Bring Substation On Line

August 11, 2003

Named to '50 Key IT Players in Energy' Annual Honors List; Invention Solved

Problem of Rebuilding Electric Infrastructure After 9/11 Attack

NEW YORK and PRINCETON, N.J., Aug. 11 /PRNewswire-FirstCall/ -- Paul V. Stergiou, a senior engineer at Consolidated Edison of New York, and David Kalokitis, a member of the technical staff at Sarnoff Corporation, have been named to the list of "50 Key Information Technology Players in Energy," a global honors program run by RaderEnergy, a Houston-based consultancy. The list, published in the June issue of Commodities Now magazine, recognizes outstanding IT achievements in the energy industry during 2002.

Stergiou and Kalokitis were honored for leading the development of system that allowed Con Edison to bring a new power substation on line in just four hours instead of the normal 72 hours.

The system was first used last March in the replacement of a substation destroyed in the terrorist attack on New York's World Trade Center on September 11, 2001. It uses GPS (global positioning satellite) technology to match the power sine-wave phasing of the substation with that of the electrical grid.

"This system applies space-age digital technology to Edison-era infrastructure," said Stergiou. "It speeds up the intermeshing of a new substation with the grid, which is crucial when you're trying to recover from disasters.

"It's also a digital solution to a digital problem. Much of the telecommunications industry has replaced its analog lines with all-digital circuits. We used to need those analog connections to match power line phasing among various locations; now we don't." According to Kalokitis, the system combines some standard utility instrumentation with computer and satellite techniques.

"We combined my group's specialty, satellite communications, with a measurement instrument that is widely used in the utility industry, and added a control system that runs on a standard laptop PC," he said. "Then we did some sophisticated programming to establish time relationships within 50 nanoseconds, so the operator at the central control station could see the precise relative phasing between the new substation and the rest of the grid."

Cutover of the electrical load to the substation went flawlessly, without any detectable glitch in the power that runs the crucial operations of New York's financial district.

Stergiou and Kalokitis believe it's possible to make the setup process even faster in the future. This would give utility crews a powerful new weapon for emergency response situations.

About Con Edison

Con Edison is a subsidiary of Consolidated Edison, Inc. (NYSE: ED), one of the nation's largest investor-owned energy companies, with \$9 billion in annual revenues and approximately \$19 billion in assets. The utility provides electric, gas and steam service to more than 3 million customers in New York City and Westchester County, New York. For additional financial, operations and customer service information, visit Con Edison's Web site at [www.coned.com](http://www.coned.com).

About Sarnoff Corporation

Sarnoff Corporation ([www.sarnoff.com](http://www.sarnoff.com)) produces innovations in electronic, biomedical and information technology that generate successful new products and services for clients worldwide. Founded in 1942 as RCA Laboratories, it develops breakthroughs in ICs, lasers, and imagers; drug discovery, manufacture and delivery; digital TV and video for security, surveillance, and entertainment; high-performance networking; and wireless communications. Sarnoff is a subsidiary of SRI International.

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