

CHICAGO – Take 13 million people, add sweltering summer heat and freezing winters, and electric bills are going to be high. True enough, Chicago is a city known for all sorts of electricity use (and the accompanying maladies), but now, new technology is attempting to make the process easier.



Take, for example, a company called InStep Software, which markets a program called eDNA. The program is used to track and monitor electricity use – both on the production and consumption end of the spectrum. The product, called a process historian, constantly gathers and evaluates information in all parts of a power generation process.

“We saw a lot of need in those markets for a high-speed process historian product that would do fairly analytical tasks,” said John Kalanik, one of the founders of InStep. “You need to capture that information in a fairly accurate manner that allows you to store it effectively.”

So, who would use a product like this? Well, the two clients that InStep has sought so far are power generation facilities, such as the nuclear power plant in Clinton, Ill. and universities, including DePaul.

“In a power generation facility, I'm burning fuel, I'm using water and I'm using chemicals. So for me to understand what my real cost of generation is on a minute by minute basis, I need to know what it's costing me and what my inefficiencies are.”

In the past, Kalanik says, measurements could only be taken on specific intervals. Now, he says, with the influx of technology into the system, constant measurements can provide accurate information for both the producers and the consumers of electricity.

The development of technologies such as these has changed the face of the power industry, Kalanik says, from “losing a load” (read: blackout) to developing the most competitive overall package. This is good for consumers, especially those in Chicago, who are used to random blackouts making summer nights particularly miserable. The reason for the change in focus, Kalanik says, is because the historian software is able to better predict when equipment needs to be repaired, so there are fewer blackouts that will result from the technology.

While Kalanik and company have made some big nationwide scores, the one local company they have not yet hooked up with is Commonwealth Edison, which provides electricity for the city of Chicago. However, ComEd's parent company, Exelon, has worked with InStep in the past.

A spokesman for Exelon, Honorio Padron, says while his company's engineering department is implementing various technologies like that provided by InStep, he and others are coming up with ways to bring technology to the consumer.

“We're like a typical company in a typical industry. We are looking at the spectrum,” Padron said. “Utilities have not been in the forefront of technology implementation, but in the last couple of years, you can see a trend in the industry to streamline the technology and move it from an environment to where technology becomes an asset that is managed for competitive reasons.”

Padron says by implementing technologies – like those provided by InStep – on an in-house basis, they are able to lower costs. Once costs are lowered, Padron says, Exelon and other companies have focused on

adding technology to call centers, implementing new billing systems and making the customer experience heavily reliant on the Internet and other available technologies.

As those measures take shape, Padron says, the power industry will become more competitive and prices for production will go down, making the industry more profitable for producers and cheaper for consumers.

“There's a lot of activity going on out there trying to find the way to do what makes sense,” Padron said. “This idea that we own customers is a bogus idea. They are owned by everybody and by the retailers, so they're not exclusive relationships. Right now, our focus is to cut costs and improve efficiency and to provide better technology at a better cost basis than we have been.”

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