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TECHNOLOGY

IT Fuels ENERGY MAKEOVERS

Power companies struggle to transform themselves with technology in an industry still in a state of flux.

By Melissa Solomon

OUTAGES, PRICE CONTROLS, regulatory violations: Newspapers offer a glimpse into the turbulent world of today's energy industry.

And the future is anybody's guess, as investigations into California's energy crisis and the Enron Corp. implosion raise new questions about old assumptions.

Despite the confusion, energy companies are pushing to keep pace with competition, and many have turned to technology for help. The systems they choose vary based on their missions, but most share one attribute: flexibility to expand or contract with the industry.

"I think what you can't do is nothing. There's a price you pay because of that uncertainty," says Eugene Zimon, CIO of NStar, a Boston-based energy distribution company.

TECHNOLOGY

MICHAEL

EXELON POWER TEAM'S revamped trading platform has helped it become more productive, say traders George Barnes (left) and Joe MacCrory, shown flanking software developer Ron Swartz.

CASE 3: From Chaos to Calm

As industry pioneers, Chicago-based Exelon Corp.'s energy traders had to create their own techniques for operating in a complex, time-sensitive business.

Their jury-rigged techniques worked, but just barely. Traders knew to push the scroll key 10 times, for instance, to get where they needed to be on their screens. Fluctuating rates, available transmissions and market rules were stored inside their heads. If a number was transposed when recording a transaction or a price was misquoted, the deal would be voided or Exelon would face penalties from regulators, says Blake McLaughlin, an IT project manager at Exelon Power Team in Kennett Square, Pa.

"It's amazing we made money during this time," says Power Team spokeswoman Caryl Sabine. "It's really a testament to the traders," adds Ron Swartz, who led the effort to overhaul the trading platform.

In 1999, Swartz started shadowing traders to see how IT systems could automate and simplify their work. Traders worked on a fixed hourly schedule, explains George Barnes, a trader who teamed with Swartz on the systems development team. The first 20 minutes of the hour were spent making calls and lining up trades. The next 20 minutes were spent coordinating the transmission of power. The final 20 minutes were spent lining up the next hour's deals and straightening up loose ends.

It was chaotic, says Swartz. After more than a year of brainstorming with traders, Swartz worked with McLaughlin to find commercial automated trading software, with no success.

But there aren't canned solutions available, says Michael Erdlen, vice president of IT at Exelon's generation division. "Eight years ago, this industry didn't exist at all, and the rules are changing all the time," he says.

Company: Exelon

Challenge: Simplifying and shortening the energy trading process

Solution: Developing a homegrown automated trading system

In July, Exelon Power Team rolled out its homegrown VizTrade system, which holds the data once stored in traders' heads and lets them point and click on a screen to transact energy trades.

VizTrade is linked to the traders' telephones, so when they call a company, all of that company's data automatically pops up on the screen and thus it doesn't have to be re-entered for each deal. From there, VizTrade presents a bubble map (created with East Windsor, N.J.-based Infragistics Inc.'s Interact Control software) showing sites of major utilities and routes that power can travel. The system automatically defaults to commonly used routes to save time.

With VizTrade, deals can be made within seconds, and traders can get started scheduling and transmitting energy immediately, rather than waiting until all the deals have been lined up during that first 20 minutes. The system operates in a real-time distributed environment, so that as traders make deals, that information is updated instantly throughout Exelon's offices, says Swartz. Color-coded circles tell traders whether a market is open, a deal is in progress or a trade has been closed. "Your first day, it's just connect the dots," says Barnes.

Previously, it could take six to eight months to train a new trader, says Joe MacCrory, a trader who also worked on the system development team. Recently, with VizTrade, an intern was conducting trades after a five-minute tutorial.

In addition to simplifying the process, VizTrade has multiplied the number of trades conducted. The return on investment can conceivably be realized on a busy summer day, says Swartz.

But, Erdlen quickly adds, "it's not a question of ROI. We need this to survive in our business."

— Melissa Solomon