



## Beyond the Bill: Gaining Profit from Data

*From the March 2004 AMRA News*

**By Betsy Loeff**  
**AMRA News Writer**

Which event uses more energy: a rock concert or a hockey game? After accessing an online energy information system (EIS), managers at the 21,000-seat Savvis Center in St. Louis discovered that NHL hockey games use about four times more electricity than other events. Now the amphitheater's managers can charge for an event's actual energy usage rather than estimating bills and risking financial losses. No wonder customers such as the Savvis Center seek consumption details from EIS vendors or utilities. Below is a look at two utility programs helping commercial and industrial (C&I) customers profit from AMR data.

### **More Data to Analyze, More Power to Save**

"You can't improve what you don't measure," says Philip Bartholomew, supervisor of utility data solutions at Oklahoma Gas & Electric (OGE). There, businesses rely on the Energy Advisor, OGE's energy information system, for online access to consumption data from the day or week before.

Among the benefits the EIS offers, you'll find:

**A tie-in to tariffs:** OGE's site coordinates usage and tariff data, allowing customers to examine potential savings. "If I add more load, does it put me in a different tariff? Will that make my energy less expensive?" Bartholomew asks. Sometimes the answer is yes, and customers gain more power for the dollars they pay.

**On-demand reads:** "Customers wanted a way to read their meters online, so we added a button that says 'read my meter,'" Bartholomew says. "Sometimes customers will see what's happening and switch on their own generators. Or they'll use the data to match their generation to load requirements because we don't buy power back." On-demand reads also come in handy for customers on load curtailment rates where the utility offers deals for lowering consumption during peak demand hours. The on-demand reads allow users to monitor consumption and avoid penalties for noncompliance with load curtailment contracts.

**Timely, usable consumption data:** "Customers can use the system to see how much energy they used the previous day and tie that back to how they ran their business over the same time," Bartholomew says. "The sooner you get information after you use the energy, the more likely you'll see ways to save," he says.

That's been the case for customers using Abacus, the online energy information system available from Ameren, an electrical utility serving parts of Missouri and Illinois. Washington University in St. Louis was able to gain use of an additional 350,000 square feet in its campus facilities without adding energy expenses by using Abacus data to trim energy usage. The Savvis Center amphitheater saved \$36,000 during its first year of accessing usage data with Ameren's EIS.

EIS programs run by Ameren and OGE could also let customers assign energy usage by process, facility or equipment. Greg Lovett, Ameren's director of products and services, sees a day when combining data points will allow plant managers to assign actual energy dollars to each unit of production. "The automobile industry is a good example," he says. "You can combine the number of cars coming off the line with how much gas and electricity you're using. Then you can show dollar costs per car." Similarly, a large packaged food manufacturer could assign energy production costs to the various brands and product types it sends to grocery store shelves.

Landlords benefit, too. The 75,000-square-foot St. Louis Airport Commercial Center uses Abacus to monitor usage in each of its individual suites, allowing the facility manager to bill for actual—not estimated—energy costs without the financial burden of an expensive metering system.

In the future, both the Ameren and OGE energy management products are likely to become even more powerful resources. Ameren hopes to add more sophisticated reporting tools. "As simple as it is, we've still found many customers don't have time to use Abacus," Lovett reports. "Now they're asking for us to compile reports for them."

At OGE, the future may include a new service that would integrate usage and weather data to produce a forecast of likely energy consumption and tariffs for the coming week. "A plant manager could use the data to plan production cycles cost-effectively, and corporate management could factor energy costs into unit prices," Bartholomew says.

### **The Utility Payback**

Large C&I customers aren't the only ones who use Ameren's Abacus as an analytical tool. The utility's own distribution-planning engineers use it, too. "We have a lot of substation meters feeding into the system and Abacus provides an easy format to see loads on a circuit," Lovett says. He also contends that having customers use energy more efficiently can cut costs on the utility side. "When customers reduce load on the system, we may be able to postpone a line rebuilding project instead of replacing smaller wires with larger ones to feed an increased load," Lovett explains. "Plus, we get credit with our constituents for energy conservation successes."

On the service side of the utility's business, the AMR data that Ameren feeds into its Abacus system reaches customer contact representatives, which facilitates fast call resolution. At OGE, having the same presentation screens that customers see lets service representatives quickly address problems also. "We don't have to worry if the customer did an accurate analysis, evaluated the correct tariff or is looking at the right screen," Bartholomew says. "We no longer spend the first 20 minutes of a call making sure we're on the same page as the customer. We're already there. Energy Advisor makes our customers feel like we're easier to talk to."

As for customer satisfaction, both Lovett and Bartholomew cite it as a main benefit from their EIS programs, and that pays off in customer loyalty. Although OGE is not in a deregulated market, the utility faces competition from nearly a dozen other energy providers—both local municipals and large investor-owned utilities such as Kansas City Power & Light. With others trying to drop a line to the largest C&I users, the Energy Advisor product allows OGE to differentiate itself and keep those large, valuable C&I accounts.

At the same time, the system lets the utility offer progressive C&I customers the kind of data they would seek from a third party if it was not available from the utility. "People contact us instead of going to an energy management firm," OGE's Bartholomew says. That keeps customers tied to the utility while it delivers a modest revenue stream. Both Ameren's Lovett and OGE's Bartholomew say their EIS products pay for themselves.

### **Getting EIS Up and Running**

With all the benefits for customers and utilities, it makes sense for utilities to offer these Internet-age services. But most do not, or if they do, they forego Internet access and send a monthly file instead. Research advisor Lynn Fryer Stein of Primen, a research and consulting firm, estimates no more than 85 utilities nationwide offer customers online access to an EIS with interval data that is updated daily.

In part, the limited access to daily load profile data reflects limited deployment of the interval meters themselves. Although California's PUC mandated that investor-owned utilities provide interval meters for customers using 200 or more kilowatts monthly, no other state has a similar directive. Stein notes that while most C&I customers use less than 200 kW monthly, less than one percent of those customers have the interval meters and communication necessary for daily load profiles.

But that doesn't mean the smaller customers wouldn't welcome the data. "We find it's not just our larger customers choosing EIS service," Bartholomew says. "We serve proactive, progressive customers who are looking for ways to make their businesses more productive and profitable."

How do utilities get in on EIS offerings? Installing interval meters is the first step. As one of the world's largest Cellnet installations, Ameren has interval meters throughout its operating territory for both residential and C&I customers, and the utility built its EIS from its AMR network. OGE currently has more than 10,000 interval recording devices operating but limits its EIS to the utility's largest customers with meters connected to a third-party reader via land-based or cellular phone lines.

Once meters are in place, utilities can assign software programmers to the job of creating the product, which is what Ameren did, or today utilities can avoid software development costs altogether. "When we created Ameren's Abacus, there were no vendors offering utilities an EIS the utility could deliver under its own brand," Lovett says. "Today, there are many vendors who have this type of product."

Ameren has enhanced its product with two major revisions since its launch in 1998, but, Lovett admits, "It's harder to justify new functionality when you develop your EIS product in-house. If you have a vendor doing your software, it allows updates to the program more frequently because vendors spread development costs over several utility customers."

OGE took the vendor route, choosing Oklahoma City-based Automated Energy. "When we started looking at offering the service, we found that just down the block there was a nimble, experienced company that could take care of our needs," Bartholomew says. EIS vendors such as Automated Energy absorb program start-up costs but still allow utilities to take the bow at the product's debut. In fact, Automated Energy even provides its utilities with marketing plans and sales materials.

For both OGE and Ameren, program fees keep the EIS services operating in the black. Of course, customer satisfaction, though hardly a tangible business plan line item, also adds value to the program. "We've never lost a customer who is using Energy Advisor," Bartholomew states.