

Public power utilities across Florida have invested in advanced metering infrastructure to lower costs while adding service options that are geared to transforming the customer experience. Several are just beginning their deployments while others have been fully deployed for a decade or more.

"We still hear that advanced metering infrastructure (AMI) is too expensive, but our commissioners saw right through that argument," said Mike New, city manager of Newberry. "We're in the service business, and we should be pursuing cost-effective upgrades to improve service."

Newberry, with about 2,300 customers, recently started deploying its AMI system. But

the city manager's comments were echoed by several other Florida public power utilities we interviewed.

"If you want to eliminate manual meter reading, lower your costs, realign your processes and improve your customer's experience, AMI is the way to go," commented Dave Kus, Lakeland Electric's assistant general manager for customer service.



Deploying AMI was "money well spent," he continued. "It made us a better utility." Lakeland Electric's AMI system has been up and running for nine years. The utility serves about 130,000 customers.

The City of Tallahassee, which serves about 124,000 electric customers, started adding AMI in 2007.

"AMI is now a way of life for us," said Chief Customer Officer James Barnes. "If you're in the service business, the journey has no ending date. If you do see an end, you're probably looking at the wrong target."

Utilities across the country have been investigating ways to transform their customers' experience for the better part of two decades. The deployment of AMI, and some of the additional service options built on AMI, are providing public power utilities a once-in-a-generation opportunity to





fundamentally change the way customers consume utilities' products and interact with them.

"In order to meet the demands of customers, we needed near-real-time data," Barnes said. "We are leveraging AMI to provide more options to customers. Customer expectations continue to get higher and higher. They think, 'If I can do other things online, why can't I interact with my utility company online?"

AMI allows utilities to be much more responsive to customers. Susan Postans, vice president for customer service at Kissimmee Utility Authority (KUA), said AMI enables the utility to perform remote meter operations within 60 seconds. Previously, it would take 30-60 minutes to roll a truck out to the customer's property.

"Now, we rarely receive calls from customers asking when we will be out to their home to turn on the power," Postans added. "Also, we actually know a customer is out of power before many of them ... do, and text





messages go out automatically to customers during an outage."

Her colleague, Lowell Knollinger, manager of support services, noted that their customers' ability to see their electric usage in near-real time is another benefit of KUA's system, which was fully deployed by April 2021. The KUA system has an online portal that customers can use to monitor their usage.

"They can see when the kids come home from school at 3 p.m., electric usage goes up because the air conditioning is turned on," Knollinger said.

"With our AMI system, customers can take more control of the way they use our product. They can monitor their own consumption and they now have the information they need to change their usage, if they want," Postans said.

Other public power utilities reported that the ability to promptly send customers high-usage alerts, for either electricity or water, was helping transform the experience





and expectations of customers and also save them money. Others mentioned the enhanced employee safety provided by AMI: Because they no longer travel to a customer's home, meter readers and field technicians no longer have to interact with angry customers, confront dogs or risk injuries while on a customer's property.

Lakeland Electric has used its AMI system to facilitate customer experience upgrades including prepaid metering; customer energy efficiency education; alarms for high usage, meter tampering, meter changes, and irregular conditions; multiple price options; and demand management programs.

Transforming Operations

Florida's community-owned electric utilities with AMI agree there are many internal operational benefits that ultimately translate into better service at a lower cost.

These benefits include streamlined processes, reduced call volumes to the contact center, fewer truck rolls and better-quality data on customer usage that will allow the

use of advanced data analytics to make better load-forecasting decisions.

All of that works to keep electric prices as low as possible.

"Our inbound call volume declined from approximately 500,000 per year before AMI deployment to about 330,000 in fiscal year 2020," Kus said. "At around \$4 per call, that's a significant cost saving. In fact, it exceeded our expectations."

AMI has allowed the Lakeland utility to limit sending trucks to address high bills, theft, meter rereads and bill adjustments. "The cost-savings from avoided truck rolls are substantial." he said.

Because customers can perform many functions once performed by customer service representatives (CSRs) in the contact center, Lakeland Electric was able to shorten the hours of the Call Center. "Our CSRs used to be on duty until 8 p.m., but we shortened that to 6 p.m. because customers don't need to call us — the meter does."





At What Cost?

AMI is not cheap, but those we interviewed agreed the value it created greatly exceeded its cost.

"AMI is the direction that the industry is going," said Lynne Mila, utilities compliance





officer for the City of Clewiston. "Customers expect this type of service. AMI is a tool with great benefits for operations as well as customers. To the extent that lower costs help keep retail electric prices down, that's great."

Lakeland Electric's AMI deployment cost \$35 million, but nearly half of that — \$14.8 million — came from a federal grant under the American Recovery and Reinvestment Act (ARRA) of 2009.

The ARRA grant program closed down years ago after making about 100 grants to utilities to facilitate advanced digital meters and AMI. But other grant sources are available. Clewiston, with 4,200 customers, got a grant through the federal government's COVID-19 relief program last year, reducing their out-of-pocket costs to about \$1.35 million, Mila said.

And the just-enacted \$1.2 trillion federal bipartisan infrastructure law may contain grants or low-interest loans for cities wanting to deploy AMI.

KUA's Postans said the utility's AMI deployment cost about \$18.5 million. It received



no grants, but the utility planned for the system by putting aside some money each year.

Reengineering Processes, Realigning Resources

KUA took a sensible approach to business process reengineering and potential job losses stemming from AMI deployment by taking the opportunity to reclassify certain positions.

"We used the deployment process to assess what the organization needed," Postans said. "We eliminated some jobs, reclassified some and created some new positions throughout the organization.

"For example, when we eliminated the meter reading function, we lost important eyes in the field. So we created the new position of 'Field Inspector,' and people in that position check our equipment on a regular basis and may engage in face-to-face interaction with customers."

KUA also created data analyst positions so it could extract value from all the new data it was receiving from customers.

Lakeland Electric's Kus said his "bible" during that utility's AMI deployment was *Reengineering*

the Corporation, written three decades ago by Michael Hammer and James Champy. "I still carry that around with me, and it's as true today as it was back then."

One of the book's takeaways is that companies need to change their business processes and organizational structures when making a strategic technology upgrade.

Tallahassee's Barnes cautioned utilities against underestimating the challenges of business process reengineering and organizational change while deploying AMI.

"If you don't have an organizational change plan to bring your employees along, your AMI deployment will be dead in the water," said Barnes, who was hired in 2007 to oversee Tallahassee's AMI deployment. He recalled the Tallahassee utility did not commit to no staff reductions when it undertook its AMI deployment. But he said the deployment triggered a process where all employees were urged to re-envision their jobs and transition into other needed positions.

Most utility employees — indeed most employees of any enterprise — don't welcome change, Barnes continued, adding that unless

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employees feel they are a meaningful part of the process, they likely will "subliminally sabotage" the deployment. "You must work hard to get employee buy-in at the front end. That includes breaking down silos within your organization."

Organizations should try to retrain employees who want to stay, said Barnes. "Tell your people what you are doing and why, and when the changes will take place. It's never too early to begin the employee buy-in process."

He recommended managing the deployment with a multigenerational employee team that reflects the customer base.

"Those closest to the work know where the problems are and how they could be fixed," Barnes said. "Their knowledge should be used to improve the organization."

Paul Jakubczak, P.E., director of electric and gas systems at Fort Pierce Utilities Authority, agreed. "We solicited employee ideas for ways to increase the value of the AMI system," he said. "Those with boots on the ground have the best ideas." FPUA serves about 29,000 customer-owners.

Communications – Internal and External

Your leadership team may talk the talk. But an AMI deployment will test whether it walks the walk.

Communications — to customers and employees — are the critical determinant of whether an AMI deployment will soar or sink, according to the industry experts interviewed for this article. They say words are important, but deeds are even more crucial because they demonstrate a company's values.

"Open, honest, and consistent communication with your employees and customers is the key to success," said KUA's Postans. "We identified the 35 jobs that would be affected by an AMI deployment, and I personally met with each of those employees on multiple occasions. We made sure they were the first to know about

all aspects of the deployment. You need total buy-in from everyone in the organization, including the board, if you want to succeed."

"We didn't have all the answers at the time, but we showed by our actions we were trying to do the right thing." Postans added that the way KUA treated its affected employees helped build employee buy-in for the deployment.

For example, of the 35 jobs that KUA identified as being affected by the deployment, nearly all of those employees were redeployed to other positions. Only one employee retired and two left on their own.

"Employees throughout the organization were anxious about the potential for job loss, and they empathized with the employees whose jobs were affected," said Postans. "We tried to treat affected employees fairly, and I think that reduced the anxiety of other employees."

She also was part of a weekly meeting involving representatives from KUA's other departments, including Information Technology, Operations, Finance and Customer Service, to troubleshoot and coordinate the rollout. She said meetings also were held twice weekly with the vendor to ensure small problems did not become huge ones.

New, city manager of Newberry, said the city wanted broad employee buy-in for its AMI deployment, so employees played a role in selecting the system. "Employees became enthusiastic about AMI because it would enhance the quality of service."

FPUA's Jakubczak agreed.

"We did not move to this technology as a way to eliminate the meter reading jobs," he said. "We cross-trained our meter readers to perform other work. We wanted to keep these skilled employees and employees were glad we were looking out for them."

Jakubczak said meter readers were retrained as customer service technicians. In that role, they visit a customer's residence to answer questions about high bill complaints or meter problems. The technicians also perform energy or water audits to help customers conserve resources and save money.

"These new positions allow us to be more proactive and engaging with our customer-owners," he said. "Communication is key to everything."



