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POWERGRAMS
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Trail Blazer
PGS 4-5

EMISSIONS SLASHED PG 2
LEADERSHIP HONORED PG 3
With a year in full operation, Alabama Power’s advanced metering infrastructure (AMI) is reaping huge financial savings and environmental dividends.

By combining cell phone and computer technologies, the AMI system automatically collects electric usage and outage information, which saves fuel, reduces emissions and helps avoid vehicle accidents and employee injuries.

Since the AMI system was deployed last December, Alabama Power has avoided more than 4.1 million miles of vehicle travel because employees and contractors are no longer required to visit homes or businesses to read meters. That means a savings of nearly 900,000 gallons of gasoline, or more than $3 million.

Additionally, 4.1 million miles equates to a total elimination of 2,406 pounds of nitrogen oxide, 30,684 pounds of volatile organic compounds and 17.5 million pounds of carbon dioxide.

“This is significant. We’re not only helping to lower emissions, but we’re also reducing congestion by taking hundreds of vehicles off the roads,” said Environmental Affairs Vice President Matt Bowden. “I’m proud to work for a company that proactively strives to reduce costs for our customers and reduce our environmental footprint.”

Another benefit of AMI is the elimination of off-cycle meter readings. In other words, there is no longer a need to “roll out” a vehicle to read a meter when a power customer changes at a property. As of September, Alabama Power avoided 419,006 truck “rolls” that would have averaged 14.87 miles per trip for a total of 6.2 million avoided vehicle miles.

“The company has also saved truck rolls because we no longer have to conduct yearly inspections of the 2,000 capacitor banks that regulate the voltage on the distribution system,” said Derl Rhoades, AMI Network Operations and Translation team leader. “The AMI system monitors these banks and alerts us if there is an issue.”

Alabama Power installed smart meters as part of a systemwide effort. Rhoades said the new technology provides many other advantages, including:

- The ability to read meters and generate bills without sending an employee to the customer’s property
- Automatically detects and reports power outages within seconds
- Improved response time to customer requests by handling them by phone – an automated response system or an operator can usually respond to customer calls
- Increased efficiency in collecting load research information
- Reduction in the number of estimated bills because information is collected in near real-time
- Fewer employee injuries and vehicle accidents
- Because there is no longer a need for employees to walk meter routes, they will avoid dog bites, slips, trips, falls and other injuries. The number of vehicle accidents should also decrease.

“Along with its positive impact on the environment, the AMI system further proved its worth after the April 27 tornadoes,” said Distribution Vice President Danny Glover. “It allowed us to quickly and efficiently track outages to help determine the hardest-hit areas before all the calls from our customers had come in.

“And in coming years, the benefits of using smart meters will continue to increase as the technology grows and new advances are revealed,” he said.
Alabama Power's newly deployed advanced metering infrastructure (AMI) system was put to the test when historically deadly tornadoes swept through the state April 27, knocking out power to more than 400,000 customers, and destroying and damaging thousands of homes and businesses.

Completed in December 2010, the AMI system uses a wireless network to read meters and automatically submit data to the company’s outage management system (OMS). With much of the wireless network undamaged by the storms, the AMI system was able to accurately identify which meters were still working.

“When a distribution line is rebuilt, our OMS automatically assumes the power is back on at those houses once the feeder is re-energized,” said Derl Rhoades, team leader, AMI Network Operations and Translation, Corporate Headquarters. “But after the tornadoes, that was not necessarily true if the house was damaged or destroyed. For the first time, we were able to compare information from meters we could communicate with before the storm to meters we could communicate with after the storm. The missing meters indicated where power had not been restored.”

Because of this groundbreaking use of AMI data and the company’s efforts to share these best practices with other utilities, Alabama Power received the 2011 GridWeek Leadership Award.

The AMI system, working in conjunction with OMS, provided data that benefited the company during storm restoration. It was used by Customer Service to determine the number of work orders. Energy Sales and Efficiency used the data to verify when power was restored to commercial and industrial customers.

The AMI data provided accurate information about the status of accounts without having to call customers or send employees to sites.

“The AMI system made the restoration process more efficient,” Rhoades said. “Because we were able to graphically overlay the data onto a map showing the paths of the tornadoes, we knew exactly where to stage the crews so they were close to the most affected areas.”

The data was used to benefit customers. For example, a school system called Alabama Power to ask if schools could reopen the Monday following the storm. In response, the AMI system quickly communicated with meters at the school buildings to determine whether they had power.

“The benefit of the AMI system Alabama Power chose is that it doesn’t depend on the distribution system infrastructure,” Rhoades said. “When a tornado goes through, it can destroy the line devices connected to the distribution system, so they can’t report anything. But the AMI system is installed on towers that are less likely to be damaged by storms. We also have redundant paths of communication because most of our meters talk to more than one tower.”

On behalf of Alabama Power, Rhoades accepted the award at the GridWeek Conference in Washington, D.C. The engraved award is a visual representation of the power grid, with four connecting circles symbolizing distribution, transmission, generation and the customer.

“With about 690 miles of our service territory affected by tornadoes that day, we had more damage than ever before, and we repaired it quicker than ever,” Rhoades said. “By allowing us to pinpoint where we had issues on the grid, the AMI system, in conjunction with the OMS, helped us to see the big picture so we could respond quicker and more efficiently.”

By Carla Davis
Top, Newton follows a safety and mechanics ritual before driving his Kawasaki 750cc ATV.

Right, checking for proper inflation of the tires.

Above, monitoring the engine oil level.
Newton’s Law

Enjoy the ATV ride, but do it safely

Nothing beats a joyride with nature.

For Steve Newton, commuting with the great outdoors starts with a beautiful day and his Kawasaki 750 cubic centimeter all-terrain vehicle (ATV). As vice president of the Talladega County-based Cheaha Trail Riders Organization, Newton has not only driven many of Alabama’s legal riding trails, he and other members work to maintain them for other riders’ enjoyment.

Newton’s love of the ATV began accidentally, during a deer-hunting trip with friends in 2003. His hunting buddy casually handed over the keys, saying, “This is the easiest way to get around 1,800 acres.”

Newton soon found he “enjoyed the ATV way more than hunting.”

After a year of canvassing the hunting camp by ATV, Newton was so enraptured he used Southern Company’s stock option to invest in his own vehicle. “That’s how I bought the first ATV I ever owned, and that’s when I gave up hunting,” Newton said with a chuckle.

“Days, whenever Newton desires some time with nature—feeling the sun on his back and the gorgeous fall colors—he rides a legal trail in an Alabama state park or designated safe area. First, he dons long sleeves, a Department of Transportation-approved helmet, goggles, chest protector, gloves and ankle-length boots.

“There’s nothing like riding an ATV—it’s fun,” said Newton, team leader for condition-based maintenance at Plant Gorgas. “It’s about being together and enjoying nature, seeing wildlife and being in the open air. I recommend the sport to everyone—it’s a great opportunity to get out, see different areas of the country and spend time with family and friends.”

His daughters Stephanie, 25, and Elizabeth, 21, enjoy riding ATV trails. The youngest particularly enjoys ATV riding. “She is my buddy, and she loves hitting the mudholes,” Newton said. When Elizabeth arrived home from college for Thanksgiving, she and her dad took the ATV for a spin at Kentuck in the Talladega National Forest.

“It’s just great fun,” Newton said. “It gets kids back to nature and away from their computers and the indoors. When I was growing up, I stayed outdoors all the time.”

Though Newton’s wife Patricia doesn’t ride, she supports his interests by serving as secretary of the riding club.

Newton credits ATVs with allowing him to forge a closer bond with his brother Rick, who is seven years older. “With Rick being that much older, we didn’t have that much in common growing up,” Newton said.

In 2009, Rick began riding and since then the brothers have driven ATVs together in Georgia and Tennessee. “Riding brought us back together,” he said.

In June, Alabama Power appointed Newton as the company’s representative on the Alabama Recreation Trails Advisory board. Under the guidance of the Alabama Trails Commission, board members oversee the development of motorized and nonmotorized trails, including equestrian, walking, bicycling, hiking and water trails.

Newton is an appointed member of the National Off-Highway Vehicle Conservation Council (NOHVCC), which deals with national and auxiliary partners for each state for off-road riding safety issues. The NOHVCC assists in planning, developing, operating and maintaining environmentally sustainable and quality OHV trails and areas.

As NOHVCC’s Alabama state partner, Newton serves as a public educator to ensure people understand the safety issues involved in riding an ATV. During the past few years, he’s become well aware of dangers posed by unsafe riding practices.

“Walker County is No. 1 in Alabama for fatalities involving ATVs, according to the ATV Safety Institute,” Newton said. “Alabama also places 18th for national fatalities involving ATVs. People take it for granted that ATVs are always safe, but statistics say otherwise. Riders must realize the importance of pre-education and training before they begin riding. Another thing is never, ever ride alone.”

Newton has learned from experience that riding an ATV holds dangers. About two years ago, while his vehicle was almost standing still, it rolled over as he tried to turn around in the middle of a riding trail. “I was going 1 mile an hour when it happened,” he said. “I can’t stress enough that an ATV isn’t a toy. I always tell people, ‘Don’t just take off. If you want to give your kids an ATV, make sure they’re on the right size machine and make sure they’re trained.’

Newton said there are lots of legal ATV trail systems in Alabama—places where riders won’t anger landowners.

“There’s a big push now to make sure people are riding legal trails, and to quit riding in areas where the land is not theirs,” he said.

Legal sites include:

- Minooka Park in Chilton County
- Talladega Outdoor Park and Kentuck Trail in the Talladega National Forest
- Stony Lonesome Park and Flint Creek Park in Calloway County.

‘Golden Rules’ of Riding

The All-Terrain Vehicle Safety Institute recommends these eight rules for safe riding:

1. Always wear a Department of Transportation-approved helmet with gloves, eye protection, ankle-length boots, long-sleeved shirt and long pants.
2. Never ride on public roads because another vehicle could hit you.
3. Never ride under the influence of alcohol or drugs.
4. Never carry a passenger on a single-rider vehicle. Extra weight may upset the balance of the ATV, causing it to go out of control.
5. Ride an ATV suitable for the driver’s age.
6. Riders younger than 16 should have parental supervision.
7. Ride only on designated trails, at a safe speed.
8. Take an ATV rider safety course.

At Gorgas’ plantwide safety meeting in June, Newton told the 315 employees about the importance of ATV safety. Alabama Power’s Safety organization has asked Newton to share the message with the company’s other ATVs plants. He’s also spoken to members of the National 4-H Association, and at events in Munford and Brookside.

“It’s a message Newton never tires of spreading. “I want people to ride responsibly and safely,” he said. “After you do that, then go out and enjoy yourselves as a family. It’s one of the best things you’ll ever do together.”

By Donna Cope

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It is true the weather directly affects your power bill – both up and down. Alabama Power customer service representatives (CSRs) have a new tool – TUG – that demonstrates how outside temperatures link directly to power usage. Using TUG (temperature usage graphing) CSRs are better equipped to answer customers questions about power usage and bills.

The brainchild of Residential Specialist Rob Dreher, TUG was rolled out in June for use by residential CSRs, Business Call Center representatives and Energy Sales and Efficiency specialists. With the advent of the company’s automated metering infrastructure (AMI) two years ago, Dreher realized meter readings could be captured and combined with daily weather data. “This tool shows how weather is a direct influence on your power bill,” said Dreher, ES&E - Birmingham Division. “The great thing about TUG is that it shows the customer’s day-to-day energy use, in black and white. In the past, we could only tell customers that it had been extremely hot or cold.”

Getting TUG operational required a team. First, Dreher discussed the project with Marketing Data Analyst Celia Yates, Energy Strategy. Yates took the idea to Energy Strategy Manager Todd Rath, who saw the business value of the project and sponsored TUG’s production. Yates quickly built a project team that included Dreher, Information Systems Analyst Mitch Quinn and Principal Business Analyst Jeff Hester, who coordinated development. TUG was put on fast-track production. The computer program was written in April, with extensive testing conducted throughout May and June by Yammer implementation team members Sylvia Andrews, Natalie Bailey, Jane Conradi, Scott Cotney, Joe Daffron, Lee Hall, Mary Hartzog, Jim Hays, Bruce Johnson, Kelly Murphree Skelton, Brandon Parker, Evelyn St. Clair, Tim Bowen and Betsy Weidenbach.

“This is the first customer use of the AMI data base to produce customer information regarding electrical usage,” Yates said. “The TUG program is extremely detailed.” Wesley Higgins, technologies advisor and Operations Support supervisor for the Customer Service Centers, devised the strategy for the program. “We hit three data bases – automated metering, weather monitoring and the Customer Service System – and put it into a simple, straightforward design that allows for quick viewing of energy usage. Also, the tool is extremely intuitive and easy-to-understand graph,” Hester said. Higgins said weather impacts energy use, causing seasonal fluctuation in customers’ energy bills. “Helping customers understand how they use energy is the first step toward using it more efficiently and getting the most value for their energy dollar,” Higgins said. “The TUG graph makes it much easier for customers to see the impact of the weather on their electric bill. By combining the customer’s usage and temperature data onto a single graph, their energy usage becomes clear.”

Designed to automatically track the customer’s meter to the operating center, TUG tells CSRs the customer’s location and can supply data about their energy use from the past two years to the present. TUG shows the customer’s daily average kilowatt-hour usage, as well as the high and low outside temperatures. All CSRs have been trained to use the program.

Customer Service Representative Jesse Rodriguez said he uses TUG at least three or four times each week. Depending on preference, customers can receive their TUG report at an Alabama Power business office, or by email, fax or mail. The program provides customers a personalized letter that includes energy-savings tips. “TUG is a great tool,” said Rodriguez, who has worked at the Metro South-Pelham Office five years. “Now, I use it every time a customer asks me about their bill.”

TUG has already displayed more than 11,000 customer usage graphs, Higgins said. The system receives 90 hits a day, on average. “The number of times TUG is used speaks to the program’s success,” Higgins said. “Customers love seeing the information, and CSRs and Residential market specialists like how easy it is to use. In the Customer Service Center, we incorporated TUG with another program, making it even easier for our representatives to use. Agents speaking to customers on the phone can access the chart with a few simple mouse clicks.”

For optimum use of energy, Alabama Power recommends customers set their home thermostats at 78 degrees in the summer and 68 degrees in the winter. TUG allows customers to see their energy use relative to outside temperatures, and how the heat or cold coincides with how much energy they consume. “Customers come into the local office and I print the TUG graph for them,” Rodriguez said. “Once I show them the power usage and the relevancy of the outside temperatures, they say, ‘I see that. I didn’t know that. Now I understand.’”

Dreher said Gulf Power, which has installed automatic metering throughout its system, is considering using TUG. “We have customers who rave over the information, and our customer service representatives and many employees in the Rates Department say it’s been a godsend,” he said. “TUG helps our customers and our employees.”

By Donna Cope
Respect the forklift.

That is a major component behind the ability of Southern and Southeast Storerooms employees to work safely. In October, these groups achieved seven years without a lost-time injury or preventable vehicle accident, again winning Alabama Power’s Star Award for safety.

It is hard to imagine the amount of materials and equipment that move each year through storerooms at crew headquarters in Clanton, Selma, Greenville, Montgomery, Auburn, Dadeville, Prattville, Wetumpka, Enterprise, Ozark, Eufaula, Phenix City and Valley, said Scott Thurman.

“It’s a big achievement because Storerooms employees drive a lot on the job,” said Thurman, area inventory manager for Southern and Southeast divisions. “We cover rural areas from Clanton to Enterprise and in between, so we end up driving many miles. But our warehouse employees also have to constantly think about using proper protective equipment, along with body positioning and proper lifting techniques.”

For Storerooms employees, the day may start driving a forklift, and that brings its own challenges, he said.

“There are so many things you have to watch out for,” said Thurman, who has worked 30 years at Alabama Power. “A forklift can definitely do some damage to the human body. Employees have to know what they’re operating, and they have to do it right.”

Today’s forklifts, many of which are electric, are extremely quiet, Thurman said. The lack of operating noise poses a hazard in itself.

“It’s a rule that we have to blow the horn while backing up and rounding corners,” he said. “Also, forklifts are so nimble and quick, as well as being top-heavy. They have a load-center that must stay within the forklift’s stability triangle or the equipment is at risk of toppling over.”

U.S. Occupational Safety and Health Administration statistics show there are about 85 forklift fatalities each year, 34,900 serious injuries and 61,800 non-serious injuries. With more than 85,900 forklifts in the country, as estimated by the Industrial Truck Association, more than 11 percent will be involved in some type of accident each year. Those are odds Alabama Power works to beat, Thurman said.

Each of Southern Division’s 15 Storerooms employees and Southeast’s 10 employees have received formal forklift training and engage in annual refresher courses. Every three years, Storerooms materials coordinators provide additional forklift training. They train Power Delivery local operations linemen, line crews and Distribution crews about proper forklift operation.

David Joiner is chairman of the Supply Chain Management Southern and Southeast safety committee, which holds quarterly Safety Renewal meetings for the teams.

“We present topics for both covered and noncovered employees, with a strong focus on safety, and try to aim at issues trending in the company at the time,” said Joiner, materials coordinator for Storeroom Operations – Dadeville Crew Headquarters. “For instance, if there were an increase in preventable driving incidents, our committee members—who we call ‘The Not Ready to be Seen Anywhere Players’—may do a skit or presentation about that.”

The committee has covered safe driving, proper lifting techniques, forklift training and other issues.

Safety committee members Craig Singletary, Vincent Harris, Felisha Folley and Cathy Phillips “always try to help look for flaws in our practices and procedures that could potentially cause an accident,” Joiner said. Throughout the year, “Safety Champions” J.J. James and Vicky Sanders, who were selected by their Supply Chain Management peers for excellence in adhering to safety practices and procedures, help employees with safety-oriented, periodic walk-through inspections of the warehouses.

“We are basically looking for anything that could constitute a hazard,” Joiner said. “We look for conditions such as raised floorboards or loose carpets that could be trip or slip hazards.”

Thurman is extremely proud of his 25 employees’ efforts to stay safe. He said they consistently focus on the fundamentals and look out for each other.

“It takes hard work to get to the top, but it takes character to stay there. It’s their attitude that makes them winners.”

By Donna Cope
Powergrams Wins 2011 ‘Silver Quill’

Alabama Power’s employee newsletter recently was honored with the 2011 Award of Excellence from the International Association of Business Communicators. The Silver Quill is for the top publication in the Southern Region, which covers 16 states and 13 countries.