# Making Changes For the Future

Huntsville Utilities 2011 Annual Report





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President and Chief Executive Officer

#### Jay C. Stowe

**Chief Operating Officer** 

#### **Theodore Phillips**

Chief Financial Officer

#### **Steve Wright**

Electric Manager

#### **Jimmie Butler**

Natural Gas and Water Operations Manager

#### **Anthony F. Owens**

Water Supply Manager

#### **Anna Parvin**

**Customer Services Manager** 

#### **Ron McLeroy**

Technical Services Manager

#### **David Champigny**

MIS Director

#### **Keith Moran**

Controller

#### **Janice Capshaw**

Human Resources Director

#### **Ron Rizzardi**

**Internal Audit Director** 

#### **Larry Denman**

**Community Relations Superintendent** 

#### Bill Yell

**Communications Director** 

#### **Mike Cornett**

Safety & Security Director

# Making Changes for the Future

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Theodore Phillips, CPA
Chief Financial Officer



William C. Pippin
President, Chief Executive Officer

Friends and neighbors,

At the beginning of FY2011, no one could have dreamed of the changes that would take place during the coming year.

Huntsville Utilities was on the road to implementing one of the biggest changes in its history as the new Customer Information System project proceeded and a Go Live was scheduled for the spring of 2011.

Another change would come in the form of combining the Water and Natural Gas Operations Departments.

This merger allows cross training of staff which provides more flexibility in utilizing manpower and skills. This action will improve service and reliability.

Perhaps the biggest change of all would be one that caught everyone literally by surprise. This would be the change in mind sets as Huntsville experienced its first complete loss of electric power ever. As the weather events of April 27, 2011, unfolded, Huntsvillians found out what it was like to feel helpless, for many the first time.

Now don't misunderstand. Huntsville has had its share of tragedy. Some of the historical instances have been brought by Mother Nature's fury, and some have been manmade. But never before has the community found itself plunged into total darkness.

It is with great pride that I take a moment to reflect upon the events that would occur over the next few weeks. Anyone who lives here witnessed the kindness and concern that unfolded as neighbors reached out to

help one another. Businesses opened their doors to help those in need, and the community rallied with a spirit that was warm, kind, and generous.

It is hard to put into words how extremely proud I am of the employees of Huntsville Utilities. From the Electric Crews who worked in 12-hour shifts, round the clock, to the Customer Service Representatives who answered phones and consoled scared customers, the need to help the community recover was felt everywhere in the company.

Water crews drove around the water system hooking generators up to water booster stations so clean, quality water remained available. Natural gas crews and Stores Department employees worked round the clock delivering poles, transformers, wire ... whatever supplies the electric crews needed to complete their tasks.

For years Huntsville Utilities' employees have been held in high respect for the work they have done under extremely adverse conditions when traveling to help others in areas torn apart by hurricanes and tornados. These experiences proved vital training grounds as Huntsville Utilities teamed with crews from Tuskegee, AL, Lake Worth and Lakeland, FL, and Pulaski, TN, to restore power and a sense of normalcy to the communities Huntsville Utilities serves.

And the biggest change that occurred during 2011 was a deeper sense of responsibility to the community in every employee.

We are proud to serve you.

William C. Pippin



### oard Members & Management Team



Ronald W. Boles
Electric Utility Board
Chairman

D. Thomas Winstead

Electric Utility Board

Vice-Chairman



Dr. James S. Wall, Jr.

Natural Gas & Water Utility Boards
Chairman

Stanley Statum

Natural Gas & Water Utility Boards

Vice-Chairman





George A. Moore, Esq.
Electric Utility Board
Secretary

E. Cutter Hughes, Jr., Esq.

Electric Utility Board

Attorney





William M. Johnson
Natural Gas & Water Utility Boards
Secretary

J. Robert Miller, Esq.
Natural Gas & Water Utility Boards
Attorney





Jimmie Butler Natural Gas and Water Operations Manager



Anthony F. Owens
Water Supply Manager



Anna Parvin
Customer Services Manager



Steve Wright
Electric Manager



Ron McLeroy
Technical Services Manager



Keith Moran
Controller



Bill Yell
Communications Director



Janice Capshaw
Human Resources Director



Mike Cornett
Safety & Security Director



Ron Rizzardi Internal Audit Director



Larry Denman
Community Relations
Superintendent



Lucreacia Points

EEO/Organizational

Development Specialist



Glenda Waller EEO/Organizational Development Specialist

Underground Facility Locations	31,156
Aid-To Construction	\$3,200,492.31
New Substations Completed	1
Substations Upgraded	3
Electric Customers*	171,058

\*Customer numbers counted by active contract accounts effective in May 2011.

## lectric Department

One of the largest electric utilities on the Tennessee Valley Authority's (TVA) distribution system, Huntsville Utilities is constantly monitoring service, evaluating future needs, and delivering reliable power to

communities within an 800plus square mile service area. To achieve all of these goals and remain dependable, the Electric Department must remain open to making changes to improve our service.

The largest responsibility of the Electric Department to Huntsville Utilities' customers is the reliable delivery of power from substations to end-users. The system is regularly reviewed and plans are made to build new substations or improve upon existing facilities. Some of the substation-

focused work completed during FY2011 included equipment upgrades to the Huntsville Primary 12kV Substation in downtown Huntsville and energizing a new 100 mva 161/46kV transformer at the Thornton Primary Substation in Research Park.

A rebuild of the Farley Primary Substation placed three new 100 mva, 161/46kV power transformers into service. These new units replaced a 1965 transformer and increased the service capacity from 200,000 to 300,000 kilowatts. Construction began on the new Redstone 161/46kV Substation being relocated for the City of Huntsville, as well as building a

Safety is a top priority in all company departments. The Electric Department formed a team and developed an "Electric Safety Demonstration Trailer." The trailer is used to educate the public, emergency response personnel, and other utility personnel. In the picture above, a lineman demonstrates why his safety gear is regularly inspected. At left, a Huntsville Firefighters' cadet class watches the demonstration.

temporary substation to feed the new Redstone Gateway development.

In addition to upgrades and construction, substation crews performed an



#### City of Huntsville Electric, Natural Gas, and Water Systems



In November a backyard digger derrick was added to the Department's equipment. This will allow crews to install poles and other facilities in places where trucks cannot go. In the picture below a crew member helps guide a pole through a carport. This particular work site has electrical utilities feeding from a backyard right-of-way.

infrared scan on all substations this past year. Delivery points were scanned again during summer and winter peak-load time periods. Substation crews also performed oil analyses on all power transformers. The command functionality of the SCADA system was tested and repairs made as needed on 313 transmission and distribution circuits. This action assures remote commands are functioning properly for daily switching and emergency conditions.

Electric facilities were provided to several large industrial tracts in Research and Thornton Industrial Parks. Work orders were also completed for 781 residential lots in new subdivisions. Aid-To-Construction payments collected for providing utility service to new construction projects equaled \$3,200,492.31.

Inspections of 12,177 utility poles resulted in replacement of 1,166,

including poles shared by other utility agencies. During the pole inspections, a variety of maintenance items were reported and corrected such as broken guy wires, insulators, and ground hardware. Poles inside substations were also inspected including Gurley, Chase, and Meridian Street. Charity Lane and A&M Substations were also inspected and repair work was begun which should be completed during FY2012.

In addition to future growth plans including substation construction and utilities for land development, Huntsville Utilities is making plans to install an electronic meter reading system. The multi-year project will replace older, mechanical meters with solid state meters, providing more consistent meter readings in terms of timing and accuracy. This improvement will eventually provide customers with more detailed, timely information regarding their energy consumption.

To help strengthen communications with our SCADA radio equipment and the future meter reading technology, a fiber optic line will be run to the new Huntsville Hospital facility in Madison and then loop around Madison to Rainbow Mountain. This will allow better coverage of the utility's service area in this portion of the system.

One of the results of a collaborative system evaluation between TVA and Huntsville Utilities, TVA has agreed to invest up to \$16,000,000 on transmission infrastructure along the middle and northern part of the service territory. This will greatly enhance system capacity and provide an almost unlimited source of power for the next few

decades of growth. The first part of the project will include a new 161kV transmission line north to the Charity Lane Substation.

At Huntsville Utilities, change means improvement – improving service, improving reliability, and improving your daily experience with the company. The Electric Department strives daily to make sure you have the power you need to succeed at your goals. Making changes to improve our service includes planning for your success.



Natural Gas Sold
A,894,202 mcf
Natural Gas Transported
Directional Bores completed
New Gas Mains
New Service Lines
Natural Gas Customers\*

4,894,202 mcf
1,553,406 mcf
74,980 feet
23,303 feet
881

\*Customer numbers counted by active contract accounts effective in May 2011.

Huntsville Utilities' Natural Gas Department is a leader in making changes to improve service to customers. Not only does the Natural Gas Department strive daily to perform its work as efficiently and safely as possible, but during FY2011 the operations division joined forces with the operations section of the Water Department to cross-train. This action will increase efficiency and reliability for both utility sections.



Increasing service availability, the gas team installed 23,303 feet of new gas mains. Installation of 581 new service lines and 74,980 feet of directional bores also added to availability. To update system infrastructure already in place, 24,816 feet of cast iron mains and 293 feet of service lines were replaced. To accommodate roadwork and construction, 69 service lines were relocated to ensure reliability within the gas system.

At the close of FY2011, there was a total of 48,628 gas usage customers, a 1.8% increase over the previous year. Huntsville Utilities customers bought 4,894,202 mcf during the fiscal year, and the company transported 1,553,406 mcf for major industrial customers.

Although providing reliable, quality service to our customers is our top priority, safety plays a significant role in accomplishing this

Huntsville Utilities
maintains approximately
100 miles of high-pressure
natural gas system pipeline
from the west side of
Madison County thru to Lake
Guntersville, southeast of
Huntsville. Pictured at left,
crews in flame-retardant
suits, repair a leaking n-line
pipeline insulator on the
Guntersville end of the line.

goal. The Natural Gas Department was recognized by the American Public Gas Association (APGA) with the 2011 APGA Safety Management Excellence Award. Each year one APGA member, out of over 700 member companies, is recognized for innovative and effective safety programs. Receiving this award reflects upon the efforts put in daily



Updating the infrastructure includes replacing existing pipelines in the older sections of town. Pictured below a Gas Department crew exposes the old galvanized gas line and inserts a new yellow PE line through the pipe. At the house, another crew member fits the galvanized pipe holding the PE line with new fittings and resets the meter.

by Gas Department personnel, supported by the Safety & Security Department, to ensure the safety of customers as well as department members. The Gas Department also celebrated its three-year

running record without a lost-time accident.

When the Gas and Water Operations Departments were combined, Natural Gas Department Manager Jimmie Butler took the lead of the newly formed Natural Gas/Water Department. Butler effectively led the Gas Department for eight years, building an impressive safety record including the State of Alabama Department of Industrial Relations Workplace Safety Award of Superior Achievement.

Huntsville Utilities has been very pro-active in leak detection and prevention. During FY2011, the Gas Department completed a three-year rotation surveying older gas mains and services and the first year of a five-year residential leak survey. Other leak surveys completed during the year included inspections of school system and downtown business district gas equipment and lines.

Going forward into FY2012, the gas team will continue to make changes to improve the service provided to our customers. A benefit of slow construction occurring

because of the economic slowdown is the ability to replace aging infrastructure. During FY2012 the Natural Gas Department has planned to install 600 new service lines, add 20,000 feet of new gas mains, replace 25,000 feet of cast iron gas mains, and change out 300 aging service lines. The gas team has planned to complete one system improvement project during FY2012, year two of the Five-Year Capital Plan (New Hope Improvement Tie).

By constantly monitoring the natural gas market and utilizing its hedging policy, the Gas Supply team was able to maintain existing rates for customers during the year. Although the main emphasis is on protecting customers from a dramatic rate increase, the

team investigates opportunities to provide lower rates for customers.

The gas team works hard to obtain the fuel at the best prices and provide service that is dependable and safe. The Department constantly looks for ways to change work procedures to improve safety. By merging and cross-training personnel between the Water and Natural Gas divisions in an effort to increase reliability, both departments are making changes to improve our service.

Huntsville Utilities
Natural Gas Department
has been recognized by
many state and national
organizations over the
years. The department is
highly regarded for its
safety record as well as
work procedures and
ethics. Pictured at left
are a few of the most
recent awards presented
to the department.



New Water Main Installed 16,385 feet
Water Pumped 14,675,011,000 gallons
Quality Tests Performed Annually 307,952
Meters Installed (Domestic & Irrigation) 1,303
Total Water Customers\* 88,195

\*Customer numbers counted by active contract accounts effective in May 2011.

## ater Department

Huntsville Utilities Water Department makes changes daily to improve and maintain the high quality of water provided to customers. The availability of one of the key elements of life has always played a vital role in location of communities. Water is no less important in the 21st century than it was when John Hunt settled near the Big Spring in (now) downtown Huntsville in 1805.

Keeping with the company trend of making changes to improve our service, the Water Department is now actively collaborating with the Natural Gas Department to better serve the customer base. Maximizing efficiency and human capital within this newly collaborative effort, crew members from both departments are cross-training to learn the overall workings of both utilities. This training will allow the two operations departments to be more flexible, efficient and productive in serving customers. The Natural Gas and Water Operations Departments are managed by Jimmie

Butler.

Water Supply and Operations continue to

Flushing water mains is required after installation or repairs to assure water quality and proper chlorine residuals.

work closely. Tony Owens serves as manager over the water treatment plants, storage tanks, and booster stations that control the flow of water throughout the service area. As Water Supply Manager, he is also responsible for the construction of the new water treatment facility that will be located in Guntersville in the future. Environmental and treatment process evaluations have been completed, and construction will be scheduled when the economy merits it.

During FY2011 the utility's water treatment plants supplied a daily average of over 40 million gallons to the service area. Staff in the water treatment facilities performed 303,331 tests, ranging from hourly to daily, to determine filtration needs in order to provide high quality, clean drinking water to Huntsville Utilities customers. Several pumps in the treatment facilities were sent out for repairs and re-installed by Huntsville Utilities personnel, resulting in significant maintenance savings to the company and customers.

Making changes to the water distribution system to improve service, Water Operations worked diligently on several major projects during FY2011. Large projects included relocating an 18-inch service on Jeff Road, a six-inch service on Cleveland Avenue, and making improvements to the King Drake 12-inch system. A 24-inch main extension was partially completed for Wilson Cove. Crews installed approximately 16,385 feet of new water mains, 29 vaults with fire flow meters, 675 domestic meters, 628 irrigation meters, and 1,357



In preparation for the new water treatment plant in Guntersville, Water Supply ran a carbon pilot test during the year. Anticipating regulatory changes from EPA/ADEM the

proposed new water treatment plant will utilize granular activated carbon filters to remove potential organic contaminants.

service line re-runs.

Water Engineering crews averaged inspecting over 23 job/construction sites each month. Although new home construction is slower than previous years, inspection requests were still received.



Water Engineering inspected and released to contractors, 29,849 feet of new water mains and 249 new service lines during FY2011.

Numerous relocation projects, required by the State of Alabama and City of Huntsville (COH), and major development projects were designed, processed, and inspected by Water Engineering. Some of

those site locations include Wilson Cove, Governors Drive Phase II, Little Cove Road Relocation, North Memorial Parkway Overpass, Taylor Lane Road Widening, Meridian Street Phase II, Lee High School Extension, Jeff Road Widening, EUL Arsenal Lease Site, and the Zierdt Road Widening Project.

Continuing to evolve and advance, this department is increasing its monitoring of regulatory action for overall system compliance with participation in the American Water Works Association (AWWA) and the Alabama Water Pollution Control Association (AWPCA). AWPCA recognized Huntsville Utilities Water Department with "Best Operated Plants in the State of Alabama" for operations at the South Parkway and downtown Lincoln/Dallas plants. They also awarded the utility the "Best Operated Distribution System Award" for the booster stations, tanks, and wells.

The Alabama Department of Environmental Management (ADEM) announced that the Environmental Protection Agency (EPA) sent notice that the South Parkway and Southwest Treatment Plants

were recognized for achieving Area-Wide Optimization
Performance Goals during 2011. The Goals are set by ADEM for
optimized drinking water treatment plant performance for turbidity.
This reorganization is achieved through the dedicated commitment
from the Supply Staff to the standards for excellence that are the
heart of the Area-Wide Optimization Program (AWOP). AWOP is a
partnership between state regulatory agencies, water systems, and
the EPA. Water Supply was also recognized for achieving its eighth
straight year with no lost-time accidents during FY2011.

Working effectively to keep costs low and improve our service to customers, the Water Department's Leak Detection crew located and identified approximately 7.1 million gallons per day in leaks on the distribution system. Once leaks are detected, Operations crews react swiftly to repair the leaks.

Although the water team was extremely busy during FY2011 making changes to improve service, they have set out a challenge for themselves for FY2012. During FY2012 year, the water team hopes to install 600 new service lines, develop 600 new stubs for irrigation, install 40,000 feet of new water mains to meet growing demand, and re-route 1,300 water service lines. In seeking to

accomplish these goals, the water team has planned the completion of two state/COH highway improvement projects in Madison County (South Memorial Parkway and Church Street).

Quality and efficiency make one of the oldest water systems in the nation one of the most successful water systems in the nation. Proper planning for expansion, efficiency, and quality water have laid a solid platform for "making changes to improve our service."

Each year the Water
Department saves thousands
of dollars by conducting
repairs and preventative
maintenance in-house.



Meters Read Monthly	344,333
Avg. Monthly Bank Draft Payments	27,240
<b>Energy Efficient Homes Certified</b>	1,028
Customer Information Center Calls	392,496



Perhaps the most noticeable changes at Huntsville Utilities during FY2011 occurred in the Customer Services Department. From the implementation of a new invoice format to the realignment of the meter reading calendar and zones, the changes increased efficiency and improved service to utility customers.

In May of 2011, a new customer service platform was launched. A letter-sized invoice was introduced and provides detailed usage information. Monthly communications are included with the invoices providing energy savings tips, explanations of programs designed to help customers save money and time, and a variety of pertinent information.

The customer website at www.hsvutil.org was revised to improve ease of use. Customers can manage their utility account online,



viewing their invoices and making payments easily. They can initiate a one-time bank draft, sign up for automatic monthly drafts and other programs offered for customer convenience as well as contribute to Project Share.

Due to service area growth, the meter reading schedule was realigned to improve efficiency and fuel use. Where it was not uncommon, due to geographic growth, for personnel to travel from one end of the county to another, now the Huntsville Utilities service area is broken into geographic zones on a regular rotation.

Huntsville Utilities has become the Tennessee Valley's leader in energy-efficient new home certifications. Working with more than a dozen local builders, the Community Relations Department accounted for a large portion of all distributor-certified new homes across the seven-state, TVA region this year. More than 1,028 new homes were certified in Madison County during fiscal year 2011 as either Energy Star or Energy Right.

Heating and cooling costs typically make up the largest part of a homeowner's utility bill and that is why Huntsville Utilities also offers the "Efficiency Program" to our customers. The program

**Community Relations** participates in local utility users on energy efficiency and other utility concerns.

consists of free inspections for homeowners who are replacing their heating and cooling equipment events to help educate and a check for balanced air flow, air leakage, and system output. Problems found during this comprehensive inspection are quickly addressed

by participating contractors, and the end result includes an efficient system with added peace of mind. Huntsville Utilities provided 126 inspections of this type during FY2011.

After a full day of instruction about the utility industry, local fifth graders participating in the Education Days event hosted by Huntsville Utilities blow off a little steam by earning chances to shoot for baskets by correctly answering questions from the day's lessons.

Energy related information is provided through phone calls, internet communications, and presentations for civic groups and local schools. Huntsville Utilities provided presentations to 877 students from 14 different schools and to 408 members of fifteen local organizations in FY2011. Presentations are customized for current energy issues and are offered to all organizations and age groups.

Huntsville Utilities also participated in community events at which approximately 7,874 personal contacts were provided information regarding available customer services. The Home & Remodeling Show, the Senior Expo, the Botanical Garden's Green-U Festival, and Marshall Space Flight Center's Earth Day were just a few of the public events in which the Energy Management Department participated.

Passing along savings due to energy efficiency doesn't stop with residential customers. The industrial customer participation in the Comprehensive Services Program hit its highest level, 73 participants, since introduced in 1997. A new program, Energy Right Solutions for Businesses, helped eleven companies save nearly 2.1 million kilowatts by decreased usage through lighting and HVAC upgrades.

Another cost savings for business customers is the Demand Response Program. Customers who participate receive payment in return for agreeing to reduce electric consumption when demand is abnormally high. These customers have special meters and can evaluate their energy data at any time. Huntsville Utilities has twelve customers with 43 facilities participating in the no-cost/no-risk program.



The Mail Center processed 1,274,677 payments, including night drop boxes, mail, and Electronic Fund Transfers, with an accuracy rate of 99.98%. A new Payment Remittance System eliminated manual data entry of customer payments and improved archival and retrieval capability, thereby improving payment research.

Customer use of the Interactive Voice Response (IVR) system increased. A total of 123,723 payment agreements and 11,949 payments were made utilizing the automated system. Another 385,000 payments were made in person to tellers at three payment locations. Bank draft payments, both automatic and online, increased to a monthly average of 27,240.

Huntsville Utilities is working hard to make managing your utility usage easier, making payments more convenient, and providing information to make you a more informed customer. These changes in information format were initiated to improve service.

A Customer Service Representative from the Customer Information Center stands by the display of a complimentary letter from a customer commending her excellent customer service skills. Huntsville Utilities prides itself on the training and support provided to reps in an effort to continually improve the customer experience.





**Electric Department Employees** 192 Natural Gas Department Employees 83 **Water Department Employees** 90 **Customer Services Employees** 123 Joint/Administrative Employees 106 **Temporary/Contract Employees** 35 **Total Employees** 629 **Customers per Employee** 518

In order for change to occur and improvements to be made, an organization's staff must be trained and utilized to the best of their ability. Huntsville Utilities excels at offering staff opportunities to learn and grow as employees and contribute to the services we provide to the area. Huntsville Utilities employee retention is legendary, and when a mention is made of expanding a department, an in-depth analysis of the need is applied.

During FY2011 Huntsville Utilities experienced significant hiring activity. Due to retirements and hiring of supplemental staff during the systems change in the customer information system, 67 positions were recruited or promoted during the year. In all, nine employees representing 256 years of experience at Huntsville Utilities retired during the year which caused a chain reaction of promotions. At the close of the fiscal year, Huntsville Utilities had a flat year of employment growth with two less employees than they started the year with, a total of 629 employees. Efficiency and training keep the employee base streamlined.

The Electric, Natural Gas, and Water Departments completed



All employees are required to attend safety meetings. The training may range from heavy equipment safety procedures to personal safety. During FY2011 a new Huntsville Police Department task force introduced employees to Huntsville's gang culture. Such information increases employee awareness and helps build good community members.

apprentice trainings during the year. The Gas Department graduated thirteen apprentices, the Water Department had ten employees complete their training, and Electric graduated three equipment operators, ten linemen and one substation electrician. Each of these employees attended thousands of hours of classroom and on-the-job training, often outside work hours, to earn the U.S. Department of Labor Certificate of Completion of Apprenticeship. Huntsville Utilities requires its apprentices to go above the government requirements in training and safety knowledge and is recognized for some of the best training programs in the nation.

At Huntsville Utilities the safety of the employees, customers and utility infrastructure is a major concern. The plans to protect these assets are changed and improved as technology and fresh ideas become available. Video surveillance has been increased in customer areas as well as installation of perimeter security measures at utility locations throughout the service area. Utility vehicle accidents decreased with only six preventable accidents in 2011, a 45% decrease from the eleven preventable accidents in 2010. Overall, vehicle accidents were

down from 31 to 26 total in 2011.

Another safety concern is the well being of customers and employees in the field as well as in the office. During the past year, Huntsville Utilities developed a partnership with the Huntsville Police Department and the Madison-Morgan County Strategic Counterdrug Team (S.T.A.C. Team) for reporting suspicious activities that might indicate drug or gang-related activities as

well as home burglaries. Employees received training on identifying and reporting the activity as well as how to avoid endangering themselves and others when such activities are observed.

Personnel in the operations departments received training from the Alabama State Highway Patrol and Huntsville Police Department on



Employees enjoy spicing up their fundraising efforts with team spirit competitions. The annual March of Dimes Blue Jeans for Babies

campaign uses a college spirit theme. Employees purchase shirts promoting Alabama or Auburn with a third Tennessee or neutral color theme.

requirements for utility vehicles and securing equipment and supplies to protect themselves and other drivers. Training on inspection of rigging equipment and safe rigging practices for lifting and moving heavy loads was also provided. Operations crews attend monthly safety meetings to review these and other concerns that must remain foremost in their minds on the job.

The health of the employees has always been a major concern. Healthy employees miss less time at work. A new in-house Wellness program was initiated during FY2011. Employees teamed up to increase exercise and lose weight. A Smoking Cessation clinic garnered its first graduating class of "Quitters." Quarterly newsletters and meetings offered information on weight loss, healthy eating habits, and ways to avoid common health issues. Currently the company is anticipating teaming up with the City of Huntsville and Huntsville Hospital to form a Wellness Clinic to foster wellness habits as well as an alternative to visiting the doctor for minor health concerns.

All employees are offered the opportunity for CPR and First Aid instruction. Field personnel are required to refresh their certification every three years. The instructors for the program were re-certified in 2011 to comply with revised national guidelines for treatment of injured individuals or for those with need for CPR.

During FY2011 fo

Huntsville Utilities' employees annually give back to the community

During FY2011 four apprentice programs were completed in all three operation divisions.

through charitable donations and volunteer services. Employees donate service time, units of blood, school supplies, and Christmas presents each year through a number of organizations. Employees network for fundraising ideas and during FY2011 raised funds totaling \$15,880 for the March of Dimes, the Cerebral Palsy Foundation, Huntsville Hospital's Project Linus for critically ill infants, the Juvenile Diabetes Foundation, and the American Cancer Society. Employees pledged another \$10,806 to United Way during the fiscal year.

Huntsville Utilities supported several community/professional activities throughout the service area. The company provided mentors to the Alabama Career Center and the Veteran Administration's H.E.R.O. programs to help military service veterans find employment. The Human Resources (HR) Department mentored human resource professionals in the North Alabama Society for Human Resources Management's Mentor University and helped train HR management personnel for the National Children's Advocacy Center. Co-op employment opportunities were provided through area colleges and universities. The company also provided personnel for the North Alabama African American Chamber of Commerce Board, Alabama A&M University Community Development Center Board, and the Chamber of Commerce's HR Roundtable.

A healthy, functional work force is the lifeblood of Huntsville Utilities and the backbone of the communities in which the employees work and live. Making changes to improve service includes making changes to keep experienced, reliable employees available to support utility services as well as community interests.









Automotive Maintenance/Repairs	5,670
Facility Repairs/Improvements	9,424
PCB/Gas Chromatography Tests	1,039
Invoices Processed	16,767



As mentioned in the Customer Services section, the biggest change of the year came with the implementation of new Customer Services practices brought about by the SAP business software conversion. Over the past four years, Huntsville Utilities has been working on a project to replace all of its legacy computer based systems with the SAP Business Suite. The first phase, completed in 2009, integrated and updated all of the back office systems including purchasing, accounting, and work order management.



The second phase, completed in May 2011, expanded the SAP Business Suite to encompass the front office integration of Customer Service. This phase included Applications, Collections, Billing, Meter Data

Four facilities technicians maintain four major buildings and 32 field sites throughout the 800-plus mile service area. Repairs and maintenance requiring ladders or possible safety hazards are scheduled for two technicians and use of any equipment necessary to complete the task safely.

Management, Printing, Cashiering, and Call Center functionality. The new business applications now work interactively to provide the most complete customer data in one unified system.

The MIS (Management Information Systems) team converted over 200,000 customers and implemented over 1,000 new program and configuration settings to support the conversion and migration efforts into SAP. During FY2011, 3,500 service desk tickets were closed by the MIS Team supporting the SAP conversion as well as new business and regulatory reporting requirements for the State of Alabama, Tennessee Valley Authority, and the Department of Energy.

Business communication software was installed for quicker customer service in the call center. This installation has redundant servers for high availability that will allow communications to and from the call center in the event of a disaster. The backup of data has been completely automated using Tivoli. The MIS Department also completed the upgrade of UNIX and Windows servers and migrated those servers to a synced SAN (Storage Area Network) for virtualization.

The Technical Services section continued installations and upgrades of services to facilitate the new SAP business software system in addition to engineering and mapping applications. Upgrades to the field services systems required improvements to the supporting applications for field data entry. The fiber network

The Fleet Department is continually striving to learn about the specialized equipment crews must use. By performing repairs in-house, like the repair on this bucket truck boom, the Fleet Department saves the utility company thousands of dollars on repairs and downtime for such pieces of equipment.



was expanded, and redundant nodes were added to strengthen the network. Improvements were made to data storage and computer resources, some of

which allow field personnel to access pertinent information through cell phones and other mobile devices in a timely manner while working throughout the service area.

The Fleet Department maintains and makes repairs to 769 vehicles and pieces of equipment. Work done during FY2011 included 1,682 maintenance services, as well as 3,988 unscheduled repairs. Sixteen major projects, consisting of two engine rebuilds and fourteen transmission rebuilds, were also completed. In all, one supervisor, five mechanics, and one clerk completed 5,686 work orders during the year.

Preventative maintenance scheduling for each piece of equipment has been computerized. This allows the staff to notify personnel and schedule lube jobs, oil changes, and tune-ups during evening hours or when the crew will not be using the vehicle or equipment. Normal maintenance parts and supplies are kept in stock, computerized so supply is always available. Non-inventory items, usually available immediately from suppliers, are purchased as needed.

The Facilities Department continued to maintain four major company buildings and 32 field sites throughout the 800+ mile service area. Staff completed over 9,424 tasks including repairs, routine maintenance and building repairs, and improvements. Some of these tasks included installing a new Incoming Voltage Analyzer on the main building power panel as well as variable speed drives on four-inch spring water pumps to conserve energy and prolong pump life. Facilities also rewired Customer Service areas and select upper management offices onto generator circuits in case of

emergency power outage situations. At the operations facilities, fuel pumps were wired to portable generators to ensure a stable fuel supply during emergencies.

The Stores Department maintained their excellent inventory accuracy with the Chase Operations Center storeroom averaging 99.0% and the Triana Operations storeroom averaging 99.1% for the year. Storeroom staff continued to work within EPA (Environmental Protection Agency) regulations to dispose of PCB-contaminated equipment. They also cleaned up 118 non-PCB transformer leaks, 72 of which included ground spills. Approximately 140,240 pounds of debris were collected from these spills and disposed of at an ADEM (Alabama Department of Environmental Management) landfill.

Efficient inventory control, well-maintained vehicles and facilities, and proper disposal of expired materials are items that have not changed over the years. Huntsville Utilities' commitment to deliver reliable utilities at the lowest possible cost is part of the company's philosophy. The changes that have been made to consolidate customer information and improve efficiency help deliver this goal.

Preparing for activation of the new SAP-based Customer Service system, MIS trained employees based upon the level of need their job required. Some employees have limited access, while employees who deal directly with customers and their data received more detailed instruction.



Tornadic winds twisted, snapped and folded over 370 TVA towers.



## pril 27, 2011: Out of the Darkness

Huntsville Utilities has made a lot of changes in the way we approach storm restoration since the 1989 Airport Road tornado. The 1989 tornado was the second largest disaster for Huntsville Utilities until the April 27, 2011 tornado. The 1985 ice storm was the worst utility storm we had experienced. The utility company has had an emergency plan for many years. In it are instructions on obtaining food, hotel rooms, supplies, use of radio frequencies, outside assistance agreements, etc.

From a utility viewpoint, the 1989 Airport Road tornado was an isolated event -- one tornado that

created massive damage along Airport Road over into Jones Valley. In this storm

service was lost to five substations with the Airport Road substation being totally destroyed. The tornado tore down three out of four TVA transmission lines and Huntsville Utilities' transmission and distribution lines on Airport Road.

In the 1989 event, at most 15,000 customers were without power due to storm damage and substations being de-energized due to the loss of the TVA transmission lines. Within three days



There was no time for clean-up as utility crews worked round the clock.



With no power citywide, trailers were brought in to house and feed utility workers. The bottom photo shows the berths inside trailers converted to sleeping quarters. The top photo shows the kitchen trailers and food storage.

power was restored to all but the damaged businesses and houses. Huntsville Utilities crews did all the restoration, and we utilized 30 line crews and ten tree-trimming crews.

The April 27, 2011, tornados and storms started early in the morning, followed by a period of calm and sunshine, then resumed with afternoon storms and tornados continuing into the night. Seven confirmed tornados, ranging from F1 to F5 intensity,

touched down in the Huntsville Utilities service area.

During the morning storms, power was lost to 42 substations serving about 60,000 people. By 4 p.m. power had been restored to 17 substations, and about 25,000 people were without power.

Then, following the midday break, tornados took out

all of TVA's 500KV and 161KV transmission lines on all sides of Huntsville, causing a loss of all power to Huntsville and most of North Alabama.

After that, the worst tornado came through the western part of the system in the Harvest/Monrovia area and destroyed over 500 houses and businesses or made them uninhabitable.

Typically, the loss of 30-40 poles would be considered huge in a tornado or storm. Huntsville Utilities had 390 poles down and 247 transformers destroyed.

The April 27th storm was unique because TVA lost over 370

transmission structures and about 12 transmission lines causing a total blackout to Madison County. Therefore, the restoration of power was twofold. First Huntsville Utilities had to get power, 800 megawatts (MW), from TVA to energize 80 substations. The second step was then repairing/replacing transformers, fuses, wire, lightning arrestors, insulators, guy wires, and service lines where needed.

days to get 800 MW of power from TVA. It took another four days to restore power to all customers whose homes were inhabitable. While waiting on TVA to restore power to our substations, Huntsville Utilities used 30 bucket crews, 15 outside crews, 30 tree-trim crews, and 15 fusing crews to put up poles and wires and survey damage that could be visually identified without power on the entire system. The



5:55 AM, May 7th: Dispatchers await instructions from their supervisor as they prepare to send crews out for another long day of repairs. The out-of-town crews would be released the next day as the recovery started slowing.



Crews saw many sad scenes as families worked clearing debris and searching for familiar items.

TVA rebuilt towers and ran a dedicated line to restore our power source.





Crews for Lakeland & Lake Worth, FL, arrestors, insulators, guy wires, and service lines where needed.

Tuskegee, AL, and Pulaski, TN, helped It took five days to get 800 MW of power from TVA. It took another four Huntsville crews.





Utility workers were greeted like heroes, and volunteers of all kinds were deeply appreciated by the affected residents.





utility tried to get as much repair work done to the feeder lines that serve power to houses before the substations were energized. Once the substations were energized, damaged transformers, fuses, and other equipment not visually identified could be located.

By the following Wednesday morning, May 3rd, all substations were energized, and power was restored to 152,000 of 162,000 residences and businesses. The remaining 10,000 customers in habitable structures in the most heavily damaged or isolated areas had power restored by Saturday, May 6th.

Over the years, Huntsville Utilities has updated the emergency action plan to accommodate the community and industry changes. A few procedures used for the April 27th recovery effort which have been added to the plan since 1989 include:

- Fifteen Two-Man Survey Crews were formed to access storm damage. Meter readers and Gas and Water Department personnel were teamed with an Electric Department employee to perform this function.
- Fifteen Two-Man Fusing Crews were formed to get to areas quicker or to areas that were lower on the priority restoration list speeding up power restoration.
- We have more tree trimming crews, twice that of 1989, under contract and brought more tree crews in from our vendor. A total of 30 tree trim crews were working clearing limbs and trees to allow line clearance.
- Fifteen electric crews were brought in from Florida, Tennessee, and Tuskegee to assist with the restoration. The assistance was requested the night of April 27th, and all had arrived by April 29th. They stayed through May 8th.
- An emergency restaurant and hotel were set up in 18-wheeler vans on April 28th. The vehicles housed 41 out-of-town crewmembers and served over 5,700 meals and drinks. In that no power meant no restaurants, this was an ideal solution to keep the crew rested and fed, decreasing the potential for a work-related injury during the recovery.
- Gas and Water crews were utilized to haul materials to job sites,



Even in areas where destruction meant there would be no return of power for a while, crews had to make sure the power was truly terminated so that when TVA restored power, there would be no fatalities or damage incurred.

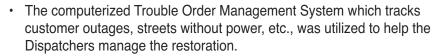


Over 400 poles were replaced during reconstruction of the system.



remove debris, and flag traffic.

- The Interactive Voice Response System (IVR) was used to take trouble/outage calls from customers, assisting Call Center personnel.
- The news media and public were given regular reports on restoration
  - efforts through releases and interviews with television, radio, and newspaper reporters. Huntsville Utilities also utilized social media in the forms of Twitter and Facebook to get information out quickly and efficiently.





- o One for restoring power to substations,
- One for dispatching outage tickets to crews for customers on the substation feeder lines, and
- One to prioritize what businesses and residences would be turned on using the criteria of which feeder had the most customers out in order to get the most customers on with one repair. Water treatment, hospitals, and food stores/restaurants/gas station corridors led the early restoration priority list, followed by residences, large businesses, etc.

Ultimately it is hard to describe how the employees of Huntsville Utilities banded together into a synchronized machine working to restore order to chaos. From Stores Department personnel who worked round the clock

providing equipment to field crews, to Water Department personnel who drove thousands of miles throughout the system

to power booster stations by generator (thus ensuring clean water for the injured community) the examples of ingenuity, cooperation and the kinship of sharing a common purpose, bringing relief to our communities, became the torch Huntsville Utilities employees carried together as we re-energized the valley.



Regular press conferences were used to help inform the public about the recovery effort.





Utility office personnel were moved to generator-power spaces, and work continued like normal for some departments.







