

Bristol Tennessee Essential Services

It was almost 73 years ago that the East Tennessee Light and Power Company became Bristol Tennessee Electric System. The company agreed to a 20-year power contract for TVA to supply power which BTES would distribute to the community.

Upon creation of BTES, a five-man power board was established by the city to have general supervision and control of the municipally owned electric system. The first board members included G.F. Helms, G.W. Vance, E.M. Woolsey, J.E. Fulwider and E.W. Crenshaw.



A former East Tennessee Light & Power Company official, John L. Gray, was named general manager, working with 19 employees to serve approximately 5,300 customers. In 1958, Gray retired and Treasurer-Accountant E.O. Olson was named general manager. During his tenure, the revenue bonds for the original purchase of BTES were retired.

In 1965, former BTES Superintendent Earl W. Doggett was named to succeed Olson, who had retired. The downtown underground distribution system was completed under Doggett's guidance. This was the largest and most costly single project undertaken by BTES up to that time. Doggett retired in 1967. James D. Sherfey from Glasgow, Kentucky,

was hired as general manager in 1967. Plans for a new Power Service Center at 2470 Volunteer Parkway were announced in July 1968 to bring operations of the organization to a more centralized location with the service area. In August 1969, revenue bonds totaling \$2.7 million were issued by BTES. Major expenditures included the Power Service Center, three new substations and distribution/transmission system improvements related to the new substations. In 1971, 87 employees served approximately 18,000 customers.

Dr. R. Michael Browder, who had held the position of director of engineering and operations since 1972, was named general manager in 1977 when Sherfey left Bristol to become the general manager of Lee County Electric Cooperative in Ft.



Dr. R. Michael Browder

Myers, Florida.

Eight substations have been designed and built by BTES personnel since the 1980s with an additional substation currently in the early stages of construction. Since 1982, BTES has reduced electric rates to our customers seven times.

After the major snowstorm in 1998 that cut off electric service to every BTES customer and hampered BTES' efforts to restore power not only by road conditions but by lost communications, BTES decided to install a fiber optic communication system that linked the substations to our office. This existing fiber optic system expanded in the fall of 2005 when BTES began providing cable television and Internet services. In March 2006, BTES received approval from the Tennessee Regulatory Authority to offer telephone service, and in November 2006, the company began providing telephone service. BTES now provides the fastest Internet available in the United States with speeds of 10 Gigabits per second!

BTES' fiber system does some pretty remarkable things to enhance our electric system and our capabilities with the fiber system have continued to grow since it was first installed. Through the fiber system, BTES has an automatic power outage reporting system. This system enables BTES to see a power outage the second it occurs at any location that has fiber services. Many times, BTES is able to send out a crew to fix a problem before the first call comes into the office to report the issue. In some instances, BTES has dispatched employees and repaired an outage before the customer even knew there was a problem.

BTES is also using the fiber system to automatically restore power when outages occur by using intelligent switches, called IntelliRupters. These devices, which are installed throughout the BTES system, have a new technology that can detect outages in a certain area, isolate damaged sections of power lines, and quickly restore power. Real-time communication between these devices through our fiber system detects a disruption and instantly isolates the problem area. This communication automatically "reroutes" power to minimize the length of an outage, or avoid it altogether if it is a temporary fault, such as an animal on the line or a lightning strike. Because of the build out of the fiber system, BTES was able to install the IntelliRupters without having to make major changes to the fiber system. With the use of our innovative Automated Switching System, BTES saved our customers an additional 46 minutes per customer of outage time in 2016.



An additional benefit provided by BTES' fiber system includes the ability to collect real-time usage data through the system's automatic meter-reading capabilities. BTES is able to read many meters from the office without having to send a meter reader to the house. We also have theft-detection abilities through our fiber system and have been able to expand our existing water heater program as a result of this system. Through the fiber system, BTES also has a system in place to monitor and control voltage at locations across the service area to move load off peak through the use of capacitors.



BTES implemented an innovative Water Heater Program over 30 years ago that has continuously been improved. Today this program uses our fiber optic system to monitor and manage the usage of water heaters and to move load from the higher cost time periods to the lower cost time periods. This can help lower customers' bills while lowering TVA's and BTES' cost. During peak load hours, the Demand Response Control System can temporarily turn off selected, or all, water heaters and minimize the electricity used during this time, all while monitoring the

current temperature of the water to ensure that the customer has available hot water. The control system will also monitor and turn on or recharge the water heaters over a phased-in non-peak usage time to minimize customer costs.

Due to efficiencies such as integration of the fiber optic system, energy-efficient home improvement loans, training at in-house seminars and trade shows, energy-efficient lighting and equipment, and continuous cost evaluation and control, BTES has continuously saved money for our customers, enabling us to keep approximately \$70 million in their pockets over the last 40 years.

BTES began its continuous improvement journey in the late 1980s and has worked to become the best electric, Internet, telephone and cable television provider. BTES and its employees have received many awards over the years including the American Public Power Association's (APPA) **E.F. Scattergood System Achievement Award** in 1994 and 2009. Also in 1994, BTES received the **Tennessee Quality Governor's Award**, now known as **Tennessee Center for Performance Excellence (TNCPE) Award of Excellence**. BTES again received the top honor – the Level 4 Excellence Award – in 2012 and is one of only three organizations to have received the award more than once.



The objective of TNCPE is to promote economic development by helping companies grow more competitive in today's global marketplace. More than 1,000 organizations have participated in the award program. Twenty-two percent of BTES employees have volunteered for the TNCPE Board of Examiners, accounting for more than 25 years of experience within the program. All members of this board must complete a series of preparation assignments and extensive training in the Baldrige Criteria for Performance Excellence. Examiners are responsible for reviewing and evaluating applications submitted in the award process. Governor McWherter was integral to the formation of TNCPE in 1993 and presented BTES with the excellence award in 1994.

In June 1996, BTES received the APPA **Golden Tree Award** in recognition of planting over one tree per customer. Our Trade-a-Tree program has also been very successful. Through our Trade-a-Tree program, BTES replaces any tree that could cause harm to power lines with one that is more suitable for the area. Since fiscal year 1997, we have planted 3,723 through this program. BTES has also received the National Arbor Day Foundation **Tree Line USA Award** for seventeen years in recognition of quality tree care, annual worker training, tree planting and public education.

In 1997, 2009 and 2017, BTES received the APPA **Community Service Award** for outstanding civic and community involvement by our employees. BTES employees are committed to the local community through civic clubs, community boards and other activities. In addition, 100 percent of BTES employees give 1-1/2 hours pay per month to United Way of Bristol. In July 2010, BTES also received the TMEPA **Community Service Award** for participating in activities in the community that addresses community need, provide opportunities for employee involvement and providing improved service to customers.



Other awards received from APPA include the **Energy Innovator Award** for encouraging innovative thinking and providing better service to electric customers and the Diamond Level **Reliable Public Power Provider (RP3) Award** in recognition for providing consumers with the highest degree of reliable and safe electric service.

Additionally, BTES has received the annual Government Finance Officers Association (GFOA) **Certificate of Achievement for Excellence in Financial Reporting** twenty years in a row.



In 2016, BTES developed a local access community television channel shown on BTES cable to promote our community and be a positive outlet for community information. Our employees develop the programming that airs on the channel including a show that highlights products made in our community called *Made in Sullivan County*, a cooking show titled *Watts Cooking*, and live high school football games of schools located in our service area called *Gridiron Gameday*, among many others.



In November 2017, BTES was notified that it received the **Malcolm Baldrige National Quality Award**. The Baldrige Award is a Presidential-level honor, recognizing exemplary practices among American organizations and businesses including an unceasing drive for radical innovation, thoughtful leadership, and administrative improvement. BTES is the first utility to receive this award since its inception in 1987 and joins 110 elite organizations that have earned this award in the last 30 years.

Today, BTES serves more than 33,000 electric customers and over 17,000 fiber customers with only 68 employees. We are proud of the accolades we have received over the years, but we are most proud of the confidence and support our customers have shown us through 70 years of change.

