



Bristol Tennessee Essential Services

Electric • Internet • Telephone • Cable

**2017 Malcolm Baldrige
National Quality Award Application**



**Bristol Tennessee Essential Services
2470 Volunteer Parkway
Bristol, TN 37620**

GLOSSARY OF TERMS AND ABBREVIATIONS

A

AMI

Advanced Metering Infrastructure

APPA

American Public Power Association

B

Base-load

The minimum load over a given period of time

BTES

Bristol Tennessee Essential Services

C

CAFR

Comprehensive annual financial report

CAP DO

Check, Act, Plan, Do – PDCA beginning with the “Check” step.

Capacity

The amount of electricity for which a generating plant or transmission system is rated.

CEO

Chief Executive Officer

CIT

Continuous Improvement Team

CITRIX

Virtual desktop that allows employees to run applications and gain access to their files from anywhere in the world.

Commercial Customer

Non-manufacturing business customer.

CSR

Customer Service Representative

CSS

Customer Satisfaction Survey

D

Demand

The rate at which electric energy is delivered to a system. The primary source of demand is the power consuming equipment of the customers.

Dispatch

The control of an electric system involving switching substations, transmission/distribution lines, and other equipment. Monitoring and operating SCADA system. Dispatching crews for emergencies and maintaining a log of work locations and purpose for outside crews.

Distribution System

A system that enables delivering electric energy at 2.4 kV to 25 kV from convenient points (substations) on the transmission system to the customers.

E

ELCP

Emergency Load Curtailment Plan

EPA

Environmental Protection Agency

EPRI

Electric Power Research Institute

ETSU

East Tennessee State University

F

FCC

Federal Communications Commission

FERC

Federal Energy Regulatory Council

Fiscal Year

Any period of 12 consecutive months designated as the budget year. BTES' fiscal year begins July 1st and ends June 30th.

G

GAAP

General Accepted Accounting Principles

GFOA

Government Finance Officers Association

H

HYN

Help Your Neighbor

I

IIP

Improvement Initiative Process

Industrial Customer

Business customer engaged in manufacturing.

K

Kilowatt Hour

A unit of energy or work equal to 1,000 watt hours. The basic measure of electric energy generation or use. A 100-watt light bulb burning for 10 hours uses one kilowatt hour.

KSF

Key Success Factors

L

LEAD! Bristol

A nine month leadership training program for business professionals in the Bristol community.

Load

The amount of electric power delivered or required at any specified point on a system. Load originates at the power consuming equipment of the customers.

Load Management

A program used by an electric utility to control its customers' use of electricity during times when their demand for electricity is high. Can involve reducing voltage or cutting off air conditioners or water heaters for short periods by remote control.

M

Mbps

Megabits per second: 1,000,000 bit per period. A measure of how fast data can be transmitted.

Municipal

Electric distribution system owned by a city to provide service for its residents.

MVV

Mission, Vision, Values

N

NERC

North American Electric Reliability Cooperation

NETWORKS

The economic development organization for Sullivan County and its municipal sectors of Bluff City, Bristol and Kingsport.

O

OFI

Opportunity for Improvement

Optical Fibers

A glass or plastic fiber that carries light along its length. Optical fibers are widely used in fiber-optic communication, which permits transmission over longer distances and at higher data rates than other forms of communications.

OSHA

Occupational Safety and Health Administration

P

Peak Demand

The maximum rate at which electricity is delivered to or by a system during a specific period of time.

PORCHE

Power Outage Reporting and Call Handling Equipment

R

Reliability

Determined by the number of outage minutes divided by the number of on minutes.

RLPC

Revenue less power costs

RP3

Reliability Public Power Provider award through APPA

S

SBP

Strategic Business Plan

SCADA

Supervisory Control Data Acquisition System- Provides instantaneous substation monitoring and control in addition to complete system status such as electric load, voltage levels, and interruptions of service.

SEDC

Southeastern Data Cooperative

SFS

Strategic Long-Range Major Facilities Study

Service Area

The geographical region that a utility is required to serve, or has the exclusive right to serve, in supplying electricity to the ultimate consumer.

SMART

System Management and Resource Training – BTES' process management program

SPP

Strategic Planning Process

Substation

An assemblage of equipment that enables switching and/or changing or regulating the voltage of electricity.

T

TMEPA

Tennessee Municipal Electrical Power Association

TNCPE

Tennessee Center for Performance Excellence (state Baldrige Program)

TNFOC

Tennessee Fiber Optic Communities

TRA

Tennessee Regulatory Authority

Transmission System

The system that transports electric energy in bulk form- usually in high voltage- from a source of supply to the distribution systems or other major parts of the electric system.

TVA

Tennessee Valley Authority

TVPPA

Tennessee Valley Public Power Association

U

UPN

Utility Power Net

Bristol Tennessee Essential Services (BTES) is a municipally-owned electric utility that also provides an advanced fiber optic network that supports our electric system and offers Internet, telephone and cable television services. BTES provides service to over 33,000 electric customers and over 17,000 fiber customers in a 280-square-mile service area in the City of Bristol and Sullivan County, Tennessee.

KEY SUCCESS FACTORS	
Reliability	in providing service to our customers
Safety	in everything we do
Financial	stability to sustain our organization and maintain the amount of money that we leave in our customers' pockets

P.1 Organizational Description

P.1a Organizational Environment

P.1a (1) BTES' main product offering is reliable, safe and cost-effective electricity. We must provide reliable, safe, cost-effective service and properly allocate costs for BTES to survive, grow and to sustainably meet the needs of our present and future customers.

BTES purchases electric power from TVA, the nation's largest public power generator of electricity. Our customers pay approximately 9.57 cents per kilowatt hour (kWh), while the national average is 12.22 cents per kWh. TVA has been a key partner with BTES since 1945. The electric system is comprised of 1,295 miles of distribution lines.

In 1998, an ice storm left all of our customers without electricity at one time or another. Restoring their service became very difficult because the local telephone company was unwilling to restore communications between our 19 substations. Because of BTES' commitment to reliability, we felt it necessary to build a fiber optic communication system to link our substations which would allow us to control our own facilities on a daily basis and, most importantly, during an outage.

BTES offers Internet (6.78 percent of revenue), telephone (3.86 percent of revenue) and cable television (9.17 percent of revenue) services through our fiber optic system. BTES offers the fastest Internet speeds currently available in the United States with 10 gigabits per second available to every business and every home in our service area.

BTES also offers a Water Heater Program, Heat Pump Program and Energy Savings Loan Program (.27 percent of revenue, included in electric revenue). The fiber optic system has allowed us to implement many innovations for our customers including automatic power outage detection and reporting, automatic meter reading, voltage monitoring, theft detection and monitoring of BTES' water heaters. Additionally, BTES is one of very few electric systems in the United States that has an Automated Switching System through our fiber optic system with the installation of IntelliRupters.

These services are designed to support the electric system and promote the prudent use of electricity, as opposed to gas, while promoting energy efficiency. All of these products are only a combined 20 percent of BTES' total revenue, whereas electric service is BTES' major product.

P.1a (2) Mission, Vision and Values (MVV)

MISSION
To provide service to our customers, employees and community that exceeds their expectations
VISION
To be the best electric, Internet, telephone and cable television provider
VALUES
stewardship, relationships, honesty, integrity, respect and accountability

BTES implements these values by using the Rotary 4-Way Test asking the following questions:

Of the things we think, say or do:

Is it the **truth**?

Is it **fair to all concerned**?

Will it **build goodwill and better friendships**?

Will it be **beneficial to all concerned**?

Employees are tested on our mission, vision and values system quarterly through our SMART (System Management and Resource Training).

BTES' core competencies are capital intensive facilities and highly competent and specialized technological expertise. These assets allow us to provide services that exceed expectations.

P.1a (3) BTES currently employs 68 full-time employees along with three part-time employees. Additional part-time student employees are utilized in the summer and during school breaks. BTES does not segment employees. It is

very important for every employee to be part of the BTES team as a whole, without segmentation. BTES does not create organizational charts vertically, but instead creates them horizontally to show that employees stand beside each other. BTES employees are our most important asset. They provide the intelligence and determine the reputation of our organization. They are respected as valuable team workers striving to meet our goals of quality service. We are committed to providing a safe and healthy workplace for all BTES employees who are the driving force behind all we do.

We build and maintain our culture through our storytelling technique that is used across our entire workforce. The stories that are told relate to our culture and support our mission and vision. BTES' values and storytelling technique engage its workforce to accomplish the mission and vision.

BTES provides competitive pay and benefits that are compared at the local level and within the electric utility industries. BTES also provides employees with educational opportunities and an open voice in decision making.

BTES provides extensive training through apprenticeship programs in the Construction and Meter and Substations Departments. The 4-1/2 year on-the-job, correspondence and classroom program tests the skills and knowledge of the apprentice and prepares them for any situation. As a result of BTES' highly educated, trained and skilled workforce, BTES employees are capable of performing different jobs allowing an extremely low employee-to-customer ratio (figure 7.3-1).

Key workforce engagement drivers are determined and deployed using the annual employee performance appraisal process and include:

- Workplace Support
- Career Development
- Fair Treatment
- Family-Friendly
- Community Involvement
- Recognition/Reward Programs

BTES places a high level of importance on employee safety. Our special health and safety requirements include electrical safety, environmental, chemical materials, lifting, and customer threats, among others. Our safety procedures are detailed in 5.1b(1).

P.1a (4) The BTES office building is located at 2470 Volunteer Parkway in Bristol, Tennessee, central to most of our customers. The BTES system is made up of 19 substations, 1,295 miles of electric distribution lines and 15,724 transformers totaling 614,550 kVA, six fiber network hub sites, 195 Local Convergence Cabinets (LCC) and 944 miles of fiber optic cable.

The combination of our electric and fiber optic system is unique. BTES uses our fiber optic system to integrate several innovative systems to ensure our electric services are more effective and efficient. This is an innovative, cutting-edge approach in operating an electric grid. We effectively use a Supervisory Control and Data Acquisition (SCADA) system to aid in outage detection, load switching and voltage regulation. We also have a Power Outage Reporting and Call Handling Equipment (PORCHE) system which is used for tracking customer outage calls. In addition, BTES also has a power alarm system which utilizes the fiber optic system and notifies BTES of a customer outage. We also install load management switches on water heaters to help reduce load in peak situations which will help keep customers' electric bills lower than it would have been otherwise.

Most recently, BTES began automating our electric system with the installation of intelligent devices across our system called IntelliRupters. These devices can detect an outage, isolate the problem area and automatically restore power in a matter of seconds. BTES' customers have already seen a significant reduction in outage times (figure 7.1-1) and, once the system is fully installed, will see an even more significant decrease in outage times.

P.1a (5) BTES is regulated by a contract with TVA and the TVA Federal Act under the Public Utility Regulatory Policies Act. We must comply with guidelines set forth by the State of TN Municipal Audit Division, the TN Code Annotated, the Federal Energy Regulatory Council, the National Electric Safety Code and the Environmental Protection Agency.

In compliance with Public Chapter 561 of the General Assembly of the State of TN, BTES established an Occupational Safety and Health Program for our employees, under the TN Occupational Safety and Health Act of 1972 and Part IV of the Tennessee Occupational Safety and Health Plan. This plan is administered by our Director of Operations and Safety under direction of the Commissioner of the TN Department of Labor and Workforce Development.

The Tennessee Regulatory Authority (TRA) has authority over the BTES' telephone service and the Federal Communications Commission (FCC) has federal authority over telecommunication services.

P.1b Organizational Relationships

P.1b (1) BTES is governed by a five-member Board of Directors appointed by the Bristol Tennessee City Council. The Board governs the utility and plays an important role in the planning, prioritizing and approval process. The Board has input into the Strategic Planning Process (SPP) and approves the Strategic Business Plan (SBP), annual budget and all purchases above \$50,000. The CEO is appointed by the Board and is accountable to the Board. The CEO appoints all other positions and sets their duties and compensation. The CEO leads the company, and a monthly Board meeting that is open to the public is held to review and approve the ongoing affairs of the organization.

P.1b (2) BTES' major customer is the electric user. BTES' electric system currently serves 28,784 residential customers and 4,657 general power customers in Bristol and Sullivan County in Tennessee and a portion of Washington County, Virginia. A smaller set of customer revenue includes electric customers who also have Internet, telephone and cable television services.

Our key customer requirements are reliable, safe and cost-effective service. BTES is expected and required to provide reliable, safe and cost-effective services to the same degree among our customers and stakeholders. BTES stakeholders consist of anyone who might be affected by our actions and success including our community, customers, workforce, partners, suppliers and collaborators.

We offer many support services including our Energy Savings Loan Program, Heat Pump Program and Help Your Neighbor Program, among others.

BTES has a very creative and innovative Existing Industry Program that supports economic development and gives BTES the opportunity to listen to its existing industry customers. This program also allows BTES to assist industries/businesses with growing their business, retaining their current employee base, supporting workforce development, adding new employees, adding capital investments and adding electric load and fiber services. BTES has developed and maintained relationships with all existing industries/businesses in the BTES service area. This program allows BTES to conduct

community surveys to assess interests, needs, concerns and threats to staying in business. The information is maintained and updated every time contact is made with an existing industry or business allowing BTES to understand trends and identify potential threats. This program has been recognized as one of the most successful programs in the region and has been showcased in several neighboring communities. Also, BTES staff instructs a Business Expansion and Retention class based on the Existing Industry Program at the University of Tennessee.

P.1b (3) Our vendors and suppliers are our partners. We treat our vendors and suppliers with respect and create an environment which will ensure mutual success.

Key suppliers and partners are provided with open communication and some participate in weekly meetings to share and discuss opportunities for improvement and new ideas and processes. As opportunities for innovation present themselves, BTES works closely with our key suppliers and partners to be able to provide the most reliable, safe and cost-effective services in implementing new innovations through weekly conference calls and meetings. They must mirror BTES' mission and culture of providing services that exceeds expectations. We expect and require them to provide us with reliable, safe and cost-effective services, just as our customers and stakeholders expect and require of us.

Figure P.1-3	
Key Supplier	Role
Tennessee Valley Authority (TVA)	Electricity
Nokia	Electronics for Fiber Optic System
OnTrac, Inc.	Installation of Fiber Optic Services at customer's premise
Carina Technologies	System to gather and manage data from Fiber Optic System and Water Heater Project
Asplundh Tree Expert Company	Tree Trimming
Heat Pump Dealers	Installs heat pumps for Heat Pump Program
Southeastern Data Cooperative (SEDC)	Customer data and billing services
Water Heater Installers	Installs water heaters for Water Heater Program
Five, Inc	Fiber optic billing and advising
Desktop Co-Op	Hosted applications, data storage and enterprise mail

BTES also partners with the City of Bristol, TN; State of TN; TVA; and NETWORKS-Sullivan Partnership to identify and assist businesses with expansion and relocations to the Bristol area. For the 25th year, in cooperation with the Bristol Chamber of Commerce; the City of Bristol, TN; and NETWORKS-Sullivan Partnership, BTES has maintained the Governor's Three-Star Community Economic Preparedness Program Award which signifies that Bristol, TN has the organization, attitude, facilities and skills to attract and retain industry. A major component of this certification is having available property for industrial development. The Bristol Industrial Park and the Bristol Business Park purchased and developed by BTES provide this component as well as electric power and fiber optic technology availability for future growth.

P.2 Organizational Situation

P.2a Competitive Environment

P.2a (1) BTES competes with the local gas company being the main energy competitor. Currently, it costs less to heat a home with a BTES inspected electric heat pump than with gas. Since electric rates can be a determining factor in the location or expansion of industry, BTES plays an important role in the health and prosperity of the Bristol community. Therefore, we consider all electric distribution utilities to be competitors. In recent years, several major companies have located in our area due, in part, to the reliability of the electric system, high safety standards and competitive electric rates offered by BTES.

Our customer base for our fiber services is directly based on our electric customer base since we are legally not allowed to provide services outside of our electric footprint. We serve over 17,000 fiber customers. BTES is the home town provider and offers competitive rates, reliability, and a strong customer service focus.

P.2a (2) We constantly monitor the electric utility industry and other related businesses so we can provide the best value for our customers and our community. We review our findings annually during the SPP.

Currently, power supply and surrounding issues continue to be a concern. Employees and board members have attended meetings and seminars to keep updated on the progress of power supply to ensure that BTES is positioned to best serve our customers in the new and changing environment.

For cable television, BTES is working to manage our customers' monthly bills by fighting excessive TV network fee increases from large media conglomerates.

BTES has been very innovative in the programs we offer. In many cases, we are a pioneer. Some examples:

- BTES implemented an innovative Water Heater Program over 30 years ago that has continuously been improved on. 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.
- BTES also implemented an innovative **Voltage Control Program** that involves the management and monitoring of the real time voltage being delivered to the home or business. This is accomplished by dynamically turning on and off 13.2kV capacitors and changing voltage regulators already installed in the BTES system.
- BTES' **Existing Industry Program**, detailed in P.1b(2), is a key component in helping BTES stay competitive, attract and retain industries and businesses, support economic development and collaborate with our community.
- BTES' **Automated Switching System** through the use of IntelliRupters is unlike any in the country. BTES is able to remotely and automatically monitor and control our electric system and significantly reduce outage times with the use of this system.
- BTES provides the fastest Internet currently available in the United States and offers **10 gigabits** per second to every business and every home in our service area.

BTES works with APPA, Tennessee Municipal Electric Power Association (TMEPA), Tennessee Fiber Optic Communities, TVPPA and local legislators to stay up to

date and influence favorable language for our customers within telecommunication and electric legislation to ensure that our customers and potential customers receive world-class service at reasonable prices.

P.2a (3) BTES is a role model in providing among the highest reliability at among the lowest cost while doing so with one of the best safety records in the nation. BTES is best in class in all of these areas when compared to other Tennessee Valley Authority (TVA) local power companies which is the most relevant comparison group.

TVA is the primary source of information for comparing ourselves to other electric distribution utilities. Other sources include: APPA, TVPPA, TMEPA, Electric Power Research Institute (EPRI) and individual utilities. The Accounting and Finance Department also gathers information on rates. Engineering and Operations has access to information and data on outage times and information regarding the electric distribution, mapping and dispatching. Management Services keeps data on employment and wage statistics, employee to customer ratios and fringe benefits.

BTES also gathers comparative information on rates, market share and customer satisfaction levels for our fiber services.

P.2b Strategic Context

Figure P.2-1 – Strategic Context

Strategic Advantages	Strategic Challenges
<ul style="list-style-type: none"> • Capital Intensive Facilities • Specialized Technological Expertise 	<ul style="list-style-type: none"> • Attracting a Highly Educated Workforce • Cost of Fuel • Technological Changes • External Facilities Threats • Power Supply

Our advantages are driven by our core competencies with our capital intensive facilities and highly competent and specialized technological expertise. BTES reviews our core competencies and strategic advantages annually during our SPP to ensure alignment and integration throughout the organization and to ensure that BTES is taking full advantage of our strategic advantages to create competitive advantages.

P.2c Performance Improvement System

Since 2007, BTES has implemented a very innovative system of pervasive, systematic, continuous improvement. It is based on analysis and measurement of daily customer feedback questions, complaints and concerns. Key employees from every department have been participating in a Continuous Improvement Team (CIT) and our Improvement Initiative Process (IIP). Every customer communication is grouped as a positive or an opportunity for improvement (OFI). These are tracked by department then by subcategory. The data gathered through this process are used to define customer needs, technological requirements, employee training goals, process improvement initiatives, breakthrough improvements and future strategies that are part of our SPP. The ultimate goal is to serve our customers and co-workers more effectively every day and ensure that we are aligned as an organization based on our mission, vision, values and KSF.

For example, the Customer Service OFIs and positives have gone through many improvements including adding additional categories to provide more detail. One specific example is that we originally tracked how many customers called for an arrangement (meaning they wanted to extend their due date without interruption of service). We then expanded this category to track the number of customers that call for an arrangement but that we cannot give them one. In addition, we are now also tracking the reason why we cannot give that arrangement to see trends in billing cycles, specific reasons or times of year. We have used this information to improve our overall arrangement process and communication we have with our customers. Most recently, this has helped us launch an Interactive Voice Response (IVR) system so that customers can set up arrangements on their own, among numerous other options.

BTES uses the CAP DO approach (Check, Act, Plan, Do) for decision making, continuous improvement initiatives, organizational learning and innovation processes. This approach is used throughout BTES ranging from the individual level, entire departments and the organization as a whole. BTES encourages and expects decision making skills at every level of the organization.

1 Leadership

1.1 Senior Leadership

1.1a Vision and Values

1.1a (1) BTES' senior leaders, which include the CEO, Director of Management Services, Director of Operations and Safety, Director of Engineering and Director of Accounting and Finance, set and annually review our MVV (see P.1) as part of our annual Strategic Planning Process (SPP). Senior leaders personally lead this process and disseminate updates to employees through weekly departmental meetings. The MVV are in the annual Strategic Business Plan (SBP), a product of the SPP, which is reviewed, critiqued and approved by the Board of Directors then deployed to the workforce.

Senior leaders ensure that our vision and values are deployed throughout the entire workforce and to key suppliers, partners, customers and other stakeholders by using multiple forms of communication. The CEO uses an article in the employee newsletter, Telowatt News, and an article in the customer newsletter, BTES News, to convey BTES' emphasis on continuous improvement, customer satisfaction and exceeding expectations. The MVV system are posted throughout the building. They are also displayed on the BTES website and the BTES television channel 13. Attendance at weekly departmental meetings and the employee performance appraisal system are additional methods that senior leaders utilize to ensure deployment methods for the MVV are appropriate and useful. BTES' senior leaders and employees are also tested quarterly through our SMART training program to ensure deployment and integration of our MVV and the Rotary 4-Way Test.

Senior leaders reflect commitment to BTES values through their daily decisions and behaviors which support and show commitment to our MVV and key success factors (KSF). Senior leaders developed a Continuous Improvement Team (CIT) that includes key employees from each department and key suppliers and partners to meet on a weekly basis to discuss ongoing projects and any organizational issues to strive towards organizational excellence. This team reports OFIs and positive communications for every department and can quickly make decisions to implement new processes to decrease the OFI. Since the improvements are based on issues that impact the KSF and what customers value, the processes systematically use all the values. The team bases all decision making on BTES' MVV and KSF and reports back weekly on the outcomes of processes so that we can continue to learn and improve.

Senior leaders' actions reflect commitment to BTES' values by following the Rotary 4-Way Test and being role models for the organization. The Rotary 4-Way Test is recited weekly during the CIT meeting and departmental meetings, reviewed annually during our SPP to ensure that it remains relevant and aligned with our MVV and is listed in our annual SBP which is distributed to employees. Plaques and coins promoting the Rotary 4-Way Test are displayed on employees' desks and throughout the building to ensure the entire workforce, key suppliers, partners, customers and other stakeholders are aware and reminded of our values and our decision making process. Senior leaders also use our storytelling technique, detailed in 1.1c(1), to support and maintain the BTES culture.

BTES' senior leaders' leadership approaches are systematically reviewed on an annual basis through the performance appraisal process to determine opportunities for improvement. This evaluation process helps BTES' senior leadership team show commitment to our values and continuous improvement efforts.

1.1a (2) Actions of BTES' senior leaders show commitment to and promote an environment of legal and ethical behavior by

- modeling correct decision making and behaviors,
- communicating openly and honestly,
- creating a culture of open communication and decision making at every level, and
- embodying how we treat others through strict adherence to the General Philosophy.

These actions are discussed during the senior leaders' performance appraisal and improvements are made as necessary to ensure alignment with BTES' KSF, core values and the Rotary 4-Way Test.

During our SPP, senior leaders review our SBP. Within this plan is BTES' General Philosophy which encompasses what BTES believes and creates an organizational environment that promotes legal and ethical behavior. This is reviewed on an annual basis and changes are made, as appropriate. During this review, senior leaders ensure that the General Philosophy remains relevant and helps meet our KSF.

Employees have a copy of the Employee Handbook which is systematically reviewed and updated by the Director of Management Services and includes BTES' General Philosophy, Equal Employment Regulations, Harassment Policy and Violence in the Workplace, among other policies. Improvements and changes are made, as

appropriate, and deployed to the workforce through our communication process and updated Handbooks, as needed.

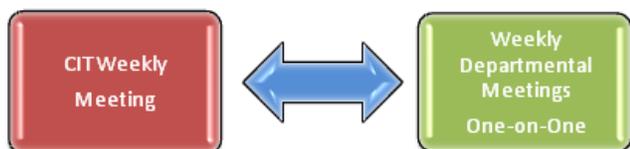
Senior leaders, and all employees, are held accountable to a written Ethics Policy and Employee Patent Policy. The Ethics Committee systematically reviews and updates these policies on an annual basis to ensure that it aligns with our organizational needs and standards. Senior leaders use our communication process (figure 1.1-3) to deploy any changes to these policies. These policies ensure that Board members, senior leaders and employees conduct themselves in a way that is appropriate and fair and consistent with the BTES ethics policy and all rules and regulations.

Senior leaders promote an organizational environment that requires commitment to legal and ethical behavior by focusing on BTES' KSF.

1.1b Communication

At BTES, senior leaders take every opportunity to communicate with employees and the community. Senior leaders are visible, have an open door policy and remind employees of this policy on a regular basis. They are actively involved in daily work activities and make themselves easily accessible by telephone or e-mail. Senior leaders communicate key decisions quickly through our two-way communication process.

Figure 1.1-3 Communication Process



Our two-way communication process begins with our CIT meeting every Monday where key decisions, opportunities for improvement and BTES' projects are discussed. Our organizational chart also shows that every person in our organization is one person away from a senior leader or key employee that is present during the CIT meeting where key decisions are discussed and made. From that meeting, information is communicated quickly throughout our entire organization by weekly departmental meetings, attended by senior leaders, where two-way communication of all important issues occurs. Individuals not in attendance are updated by email or one-on-one communication.

Each department holds a weekly meeting with senior leaders in attendance. This allows them to be actively

involved in each department and provides them with further opportunities to engage the entire workforce. During these weekly meetings, employees are encouraged to communicate openly and honestly with the supervisor and fellow employees. This two-way communication provides employees with the opportunity to discuss any issues, questions and concerns they may have and provides for rapid feedback across the organization. Senior leaders provide positive reinforcement through daily discussions, email and written notes and are quick to recognize employees who demonstrate high performance by many communication methods including postings on bulletin boards, notes of encouragement and praise during weekly meetings.

Senior leaders are also active during the annual Service Awards banquet that recognizes employees for their years of service. In addition, the Personal Service Award is presented to one employee who was nominated by co-workers and selected by a team of previous winners. The employee is nominated based upon their service and dedication to BTES and the community.

Communication through our CIT meeting, weekly departmental meetings and one-on-one communication is reviewed during each employee's performance appraisal and is a performance area that must be answered by the supervisor and employee to ensure the most effective means of communication are being used.

Senior leaders' communication methods are integrated throughout BTES through the weekly CIT meeting and its focus on our mission of exceeding the expectations of our customers, employees and community.

Senior leaders encourage frank, two-way communication with our customers through our numerous listening methods listed in 3.1a including proactively soliciting feedback through quarterly comment cards in our newsletter, surveys, website forms, existing industry visits and one-on-one communication.

BTES monitors social media channels including Facebook, Twitter, LinkedIn, YouTube, local media outlets and others. These listening methods are tracked through our CIT. Information received through these methods is deployed to the appropriate department, actions are taken as necessary, and each communication is reviewed in the weekly CIT meeting to bridge gaps and identify opportunities for our organization to improve.

Additionally, BTES has a private Facebook group for current employees and their spouses, as well as retirees.

This communication method helps to quickly inform the “BTES Family” of upcoming events, important changes to policies and benefits and other relevant information. This page is monitored daily and messages and comments are responded to within minutes.

1.1c Mission and Organizational Performance

1.1c (1) Senior leaders create an environment for success now and in the future by continuously planning and visionary leadership. Item 2.1a(1) details our planning processes through our annual SPP which results in our SBP and the bi-annual Strategic Long-Range Major Facilities Study (SFS). These two planning initiatives are led by senior leaders but involve employees from every department. The SBP contains our major objectives and general strategies for the year including the integration of total quality management objectives. It also includes a five-year financial forecast which is updated annually with the realization that our business can have wide variations because of customer requirements and the fact that our business is weather-driven. The System Study is made biannually that incorporates the near-term and long-term major plant requirements. This is to ensure that BTES can meet immediate customer requirements and that any additions made will fit into a long-term unified system.

Senior leaders create a sustainable organization and an environment to achieve our mission by reviewing our KSF during our SPP and identifying ways for each department to improve (figure 1.1-2). The Business Model is used during the weekly CIT meeting to focus our continuous improvement efforts on the areas that are most important to BTES’ success. Senior leaders actively listen to the needs of customers, fellow employees and the community (see 3.1a1 for methods used) through daily contact and communication. Senior leaders also listen to employees through the performance appraisal process and weekly departmental meetings. Information from these communications are reviewed during the weekly CIT meeting and rolled into the SPP, as necessary. Senior leaders are always looking towards the future to ensure that BTES will meet the current and future needs and requirements of our customers, employees and community. The Business Model is reviewed annually during our SPP to ensure it is an effective method for decision making and remains focused on BTES’ needs.

Senior leaders create an environment for organizational performance improvement by participating in and leading the weekly CIT meeting. This meeting serves as a platform for discussing OFIs and positives, areas of innovation and organizational sustainability. During this

meeting, senior leaders and key employees focus on BTES’ KSF and use the CAP DO approach to systematic learning, decision making and improvement.

Figure 1.1-2 BTES Business Model



Senior leaders have created a culture of excellence by the use of the state Baldrige quality award (TNCPE). BTES won the highest level for a second time in 2012 which shows continuous use for performance excellence since the top award was first received in 1994.

BTES creates an environment for organizational and workforce learning by encouraging its employees to continue their education. Senior leaders want to provide employees with professional development opportunities that increase their skills and enhance their contributions to our organization. Senior leaders participate and encourage other employees to participate in programs that emphasize quality training. Programs include the Tennessee Center for Performance Excellence (TNCPE), leadership development programs, LEAD! Bristol and overall employee development programs. Senior leaders also encourage employees to participate in the BTES Professional Development Reimbursement Program in which BTES will help pay for any full time employee to further their training and/or education. These opportunities are deployed to employees during their performance appraisal process and in the employee handbook. Training and development is an ongoing process and is viewed as an opportunity for personal and professional growth.

Senior leaders develop and enhance their leadership skills by attending conferences, webinars and training and obtaining related certifications. All senior leaders have served as TNCPE Examiners, along with other supervisors and employees. Leadership development is

reviewed during the performance appraisal process and integrated through commitment to the BTES vision.

Senior leaders create a workforce culture that delivers a consistently positive customer experience and engagement by focusing on BTES' values and promoting the Rotary 4-Way Test. This ensures that our customers and all stakeholders are being treated honestly and fairly and continuously builds relationships for sustainable growth. Senior leaders promote the continual improvement in customer processes through the CIT and IIP process (figure 3.1-1) which involves all departments looking at how to proactively eliminate any OFI that comes from a customer, including any question a customer asks by saying, "Why did the customer not have the information needed to answer the question themselves?" This creates a positive leadership culture and continually improves customer experiences.

Senior leaders also use our storytelling technique to build and maintain the BTES culture by focusing on our values and KSF. Stories are told in relation to these key items to not only build our culture, but also to train others, promote ethical behavior and understand BTES' practices. Stories are told based on our CAP DO decision making process and are systematically told throughout our entire organization during weekly meetings and individually, as needed. BTES continues to improve this process which is reviewed during our CIT meetings to ensure that this approach is aligned with organizational needs and is a valid method for training.

BTES creates an environment for innovation and intelligent risk taking through our CIT and focus on our KSF. Employees are encouraged to continuously look for ways for BTES to improve, no matter the size of the project. Through our CIT and IIP (figure 3.1-1), employees discuss areas of improvement, ideas for innovation, comparisons of other organizations and BTES' success in future growth. Each week, priorities in each department are discussed and innovative ideas are encouraged. This same process is followed during the weekly departmental meetings. Action plans are created, as necessary, and deployed through our communication process. Projects are reviewed weekly during our CIT, or more often through the development of project teams, to ensure appropriate prioritization based on business environment and customer needs. All projects and innovations at BTES must follow our Business Model including meeting or exceeding our KSF standards and be integrated through our mission and vision with our focus on customers. Striving to get to every higher level of performance in key areas that impact the customer and

BTES drive a culture of innovation and creativity at all levels. Innovation project updates are given each week during the CIT meeting to ensure accountability and progress. Senior leaders help to determine if a project is lacking, no longer necessary, or if significant change is needed to succeed.

Through conference attendance, partnerships with local, regional, state and national organizations and research, BTES has many innovative initiatives already in place and are continuing to expand. These include our fiber-to-the-home network which provides Internet speeds up to 10 Gigabits per second (the fastest available in the United States), Automated Switching System, Load Managed Water Heater Program, voltage regulation, Meter Data Management Program, green initiatives through an electric vehicle and charging stations and an Economic Development Loan Program.

Senior leaders promote these programs through community presentations; being active on community, state and national committees and boards; and partnering with local organizations including East Tennessee State University (ETSU) and Northeast State Community College, among others.

These programs support our KSF and help us to be sustainable by promoting community development and effective use of our electricity. We continually review our metrics to be financially stable and to provide reliable, safe services. Employees are encouraged to continually look for innovations at all levels in the organization, from the front line employee to the CEO.

The CEO is responsible for BTES' succession plan and chairs the Succession Planning Committee which also includes the Director of Management Services and other directors and supervisors. BTES has a utility-wide succession plan that includes the entire workforce that was created in July 1992. This succession plan is reviewed on an annual basis. This plan looks at workforce age, eligibility for retirement, position, education and experience levels. Currently, we have 9 percent of our workforce that is eligible for retirement within the next five years. The succession plan identifies critical executive and management positions, forecasts future vacancies in those positions and identifies potential managers who would fill vacancies. Vacancies are to be filled from within or, in the event no viable candidate is available, on an "acting" basis while an external recruitment effort is conducted. The position of the CEO is discussed with the Board of Directors. The succession plan must be reviewed within one week of any change in positions

included in the plan and within one month of the beginning of each new calendar year.

Senior leaders personally participate in succession planning through the performance appraisal system and review of the Organizational Chart during the SPP. They also assist in developing training programs and creating workshops and encourage key employees to build leadership skills. They are always looking for additional programs and services to help develop current and future leaders. The Succession Plan is integrated throughout BTES through our mission of exceeding expectations which includes having the appropriate and skilled staff to meet the needs of our organization.

1.1c 2 BTES creates a focus on action through our weekly CIT meeting and through the SPP. During the CIT meeting, each department presents their opportunities for improvement (OFI) as identified through their communication methods, discusses their highest quantity of OFIs for the previous week and then uses that information to identify needed actions. Actions may include reviewing and improving processes, one-on-one workforce development and training, or new projects and innovations. Any action items are communicated, as appropriate, through our communication process, and reviewed on a weekly basis to ensure learnings and improvements are being made. All actions developed must be focused on our mission and vision, and be integrated through our KSF.

Organization action plans are listed in the annual SBP. These are reviewed during the annual SPP and changes are made as necessary to ensure alignment with BTES' KSF. See figure 2.2-1 for more details on action plans.

Senior leaders focus on our KSF to accomplish objectives, improve performance, enable innovation and attain our vision. They look at reliability, safety and financial (KSF) outcomes to ensure success for our customers and stakeholders and determine new ideas and innovations from those results.

Other mechanisms that help identify a need for action and drive a focus on action outside of the CIT's OFI and positive reviews through customer communication methods and SPP include the annual employee performance appraisals, conference attendance, weekly review of our KSF, quarterly review and testing of our work processes and daily CAP DOs. Employees also review accidents that happen at other utilities on a monthly basis during safety meetings and attend utility equipment shows to analyze new, safe and cost effective

ways to complete our work. Findings from these methods are discussed in our weekly CIT meeting and departmental meetings and improvements are made and deployed through our communication process.

1.2 Governance and Societal Responsibilities

1.2a Organizational Governance

1.2a (1) Senior leaders are held accountable by the performance appraisal system; performance measures including rates, outage times and injury rate; feedback from employees, customers and the community; and by the Board of Directors. Fiscal accountability is reviewed and measured through monthly financial statements, rates and audits. Board meetings are held on a monthly basis and are open to the community providing for high levels of transparency while monthly reports are provided to the City Council. The City Council votes on and selects the members of the BTES Board of Directors following an application process that includes potential conflicts of interest. Once selected, each Board Member meets directly with the CEO of BTES to review policies, as appropriate. Independence in internal and external audits is also achieved by an independent audit firm which is overseen by the Board. Our rate payers are protected through our rates. There is no return to stockholders; therefore all goes back to keep rates low or to provide new or improved services. See 1.1c(1) for information on succession planning.

1.2a (2) As per Chapter 32 Public Acts of Tennessee 1935 and the contract with TVA, a five-member Board of Directors was established by the City to have general supervision and control of the municipally-owned electric system with one member serving from the City Council. The four non-council members serve four-year terms. This allows one term to expire every year. At the time of appointment, the City Council evaluates the Board member's performance and attendance. The City Council assesses how the person's role as a Board member and their actions within the community interact together. The City Council appoints a member by majority vote.

The CEO's performance is evaluated during each of the monthly Board meetings. They evaluate his performance based upon the overall success of the organization which includes looking at financial reports, meeting updates, outage time, rates and safety hours. This feedback is used to identify areas of expertise and opportunities for improvement which is communicated back to the CEO and reviewed again, as needed, at the next meeting. All evaluations are focused on fulfilling our mission and helping BTES become the best provider possible.

Compensation of the CEO is compared at the local, regional and national level to ensure consistency. The Board members also live and work among our customers and may discuss any feedback they receive during the meeting to identify areas for improvement. This feedback is then reviewed, as appropriate, during the weekly CIT meeting and SPP.

Other senior leaders are evaluated by the performance appraisal system, production reports and goals set for employees. These are reviewed during the performance appraisal process and additional training and certifications are discussed and assigned as appropriate. Compensation for senior leaders and all employees is reviewed during the performance appraisal process and compared at the local, regional and national level to ensure consistency and fairness.

1.2b Legal and Ethical Behavior

1.2b (1) BTES addresses any adverse impacts our products may have on our community through continuous communication. Senior leaders communicate with customers through media, our website and the customer newsletter on conserving energy to help the environment and save money, as well as our new TV channel – BTES Power 7. This is also accomplished through our Energy Savings Loan Program, which allows our customers a means by which they can borrow money for energy efficient home improvements. These items are inspected by a BTES-trained energy efficiency professional. Safety of employees and customers is also a top concern of senior leaders. Safety for employees is communicated through weekly meetings, monthly formal safety programs and informal communication. Safety for customers is also communicated through our customer newsletter, website and voltage demonstrations and safety programs given to schools and civic clubs.

The CEO of BTES is involved in many areas concerning conserving natural resources. He has been chairman of the TVPPA Rates and Contracts Committee for almost 30 years. The committee works with TVA on changes in the electric rates. As a member of this committee, he has the ability to anticipate customer concerns, needs and expectations in advance, allowing us time to address them. He is a member of the TVPPA Energy Service Committee, which looks at new methods and products for energy savings and how to market to customers to save energy; the Technology Applications Committee, which looks at new technologies; and the New Products Committee.

BTES is forward-thinking with respect to the environment and what impacts programs may have on the electric industry in the future. Because of our fiber optic system, we have the ability to read electric meters electronically from the office saving money to fuel our meter readers' trucks and time that can be used elsewhere. This system also supports our Water Heater Program. This program is designed to help save energy and reduce the need to build future generation plants, saving our customers money. Additionally, our Automated Switching System is saving resources by automatically doing in seconds what it would take our employees hours to do manually – saving time, money, fuel, etc.

BTES has processes in place to ensure that we achieve and surpass regulatory and legal requirements including annual financial audits that measure compliance with generally accepted accounting principles and guidelines established by the State of Tennessee Municipal Audit Division and a TVA Compliance Assessment that measures compliance with our TVA contract. These annual audits result in a list of recommendations BTES should make to improve processes. As appropriate, BTES senior leaders review these recommendations and make improvements which are deployed through our CIT and one-on-one communication.

All supervisors perform a monthly job/work area safety observation and submit a written report to the Director of Operations and Safety. The Director of Operations and Safety performs periodic safety inspections of all areas. Auditors from TVPPA perform annual safety audits and TOSHA performs periodic safety inspections, as well. Results are reviewed in our CIT meeting and deployed to the workforce through our communication process. These are integrated through BTES' goal in our mission to exceed expectations and our vision of being the best.

Our Red Flag Policy helps identify legal and regulatory risks in securing our customers' identity. This policy is reviewed and deployed on a quarterly basis through our SMART processes. The Red Flag Team meets on an annual basis to make improvements to the policy and the Board of Directors must approve the policy annually.

Through regional, state, TVA region-wide and national conferences, we have reports of what has happened at other utilities. We investigate these problems in our weekly CIT meeting to help prevent them from happening at BTES using the CAP DO process.

Risks associated with our products and operations are addressed through a third party insurance provider.

Coverage is provided for cyber security; workers' compensation; comprehensive, general and automobile liability; auto physical damage, crime and fiduciary; errors and omissions; equipment and facilities; and pollution.

1.2b (2) Ethical behavior is promoted and ensured in all interactions through open and honest communication, accountability to our partners who are also involved in weekly meetings and through accountability to the Board of Directors. Employees are also held accountable to supervisors and the CEO. Senior leaders and supervisors review employee calls and customer account notes, and quickly respond to community and customer concerns. The CEO is actively involved in all of these processes. Senior leaders, and all employees, also use the Rotary 4-Way Test to ensure that their behaviors are ethical. BTES has had zero breaches in ethical behavior.

Employees are also responsible for understanding the BTES General Philosophy as stated in the SBP and the Employee Handbook which discusses how employees are expected to act and portray themselves as an employee of BTES. This is reviewed with employees when they are hired and during the performance appraisal process to ensure that every employee understands what is expected of them. The BTES General Philosophy is reviewed annually during the SPP and changes are made as necessary to ensure alignment with BTES' MVV and KSF. Changes and improvements are deployed, as necessary, through our communication process.

BTES is always visible to our community and open communication from outside and within BTES helps monitor ethical behaviors. Unethical behaviors are not tolerated and are responded to accordingly. Any breaches in ethical behavior are immediately addressed and discussed with the employee's immediate supervisor, their director, the Director of Management Services and the CEO. They are formally reviewed and noted in the employee's file and again addressed during the next appraisal, as appropriate.

1.2c Social Responsibilities and Support of Key Communities

1.2c (1) (2) BTES' Business Model's core focus is on our customers which includes our societal well-being and community support. Each process, project, innovation and product offering must take our customers, employees and community into consideration as stated in our mission.

Societal well-being is a very important aspect within daily operations. We continually look for ways to help our

customers save energy. We provide a customer communication program through all area news media, BTES Power 7, schools and civic programs, direct mail, in-house seminars and trade shows in order to educate and assist customers in the safety, conservation and efficient use of electricity. The fiber optic system enhances the quality of life in our community as it is used as a tool for economic development.

BTES contributes to the well-being of our community by promoting green initiatives through our Green Team. Through this we promote BTES services that help our community "go green." These include our bank draft program, e-bill option and energy savings efforts including our Water Heater Program, Energy Savings Loan Program and Heat Pump Program.

The 280-square-miles that we serve is our key community. BTES selects and evaluates community support annually through the SPP. These are selected in relation to our KSF and what is going to have the biggest impact and help for our customers. We also support community events based on the financial impact it could have on BTES and its employees. For example, we support Healing Hands and Crossroads Medical Mission which provides low to no cost medical services to our community. If our community didn't have this option, these individuals would have to go to the emergency room for these services with the possibility of not being able to pay for the services. This could potentially raise healthcare costs for everyone and ties into our KSF of financial in keeping our costs low.

We also look at the advertising and marketing value of each sponsorship. Employees are empowered to suggest community support activities and lead volunteer projects. Employees at BTES are considered representatives of BTES at all times and in every volunteer activity and community board/committee they participate on.

Our Voltage Control Program allows us to lower our peak demand to save current and future generation costs. We have also been installing LED traffic lights which save 850 kWh for each light per year compared to incandescent lights. This is a savings of 6,800 kWh per typical intersection per year. The savings from three intersections would provide enough energy to run an average home for a year! Many industries in the BTES service area are installing more energy efficient lighting and equipment in partnership with BTES and TVA.

Senior leaders, supervisors and other employees maintain a high level of involvement in community

activities. BTES is well represented in local civic clubs, the Chamber of Commerce, United Way, Salvation Army, Paramount Foundation, Rotary International, economic development groups, local churches, schools and other agencies. BTES is so outstanding in public and community service that it has been awarded a number of industry awards recognizing the role model level of BTES' community service. In 1997, 2010 and 2017, BTES received the APPA's Community Service Award for outstanding civic and community involvement by our employees. In June 2009, BTES received the APPA's prestigious E.F. Scattergood System Achievement Award for outstanding achievement by a utility. BTES previously won the award in 1994. This award honors APPA member systems that have enhanced the prestige of public power utilities through sustained achievement overall and customer service. In July 2010, BTES received the TMEPA's Community Service Award for participating in activities in the community that address community need, provide opportunities for employee involvement and provide improved service to customers. BTES has also received the APPA RP3 Diamond Award for providing excellent service to our customers through our reliability levels, outstanding safety practices, system improvement initiatives and workforce development procedures.

One of the main ways we support our community is through our support of the United Way. All employees are extra mile contributors, contributing one and a half hours of their pay or greater each month. The average per capita gift per employee has steadily grown over the past ten years (figure 7.2-4). BTES is the only company in Bristol with 50 or more employees that has 100 percent of their employees as extra mile contributors and whose average contribution is greater than an extra mile contribution. Several employees participate on United Way Committees and have served on the Board of Directors and as Campaign Chairman.

BTES encourages employees to take advantage of volunteer leadership opportunities in the community. This serves three purposes: 1) offers personal development and promotes employee satisfaction, 2) gives opportunities for interaction with a wide variety of customers and 3) provides avenues for BTES to give something back to our community.

BTES works diligently to help prevent customers from falling too far behind in paying their electric bill and thoroughly screens new applicants to determine inclination to pay. In an effort to help those in need find necessary funding, BTES works with area churches, the

Salvation Army, United Way, the Upper East Tennessee Human Development Agency, Bristol Faith in Action and other customers via our HYN program. We started the HYN program in 1990 whereby we collect donations from our customers and employees to help pay the electric bills of those in need. These contributions are matched each year up to \$20,000 by BTES. The Salvation Army certifies the eligibility of the recipient and the United Way of Bristol administers the funds. In December 2016, employees developed a new way for our customers to easily donate to this program called "Round Up" which rounds up their bill to the next dollar. All of BTES' employees participate in the Round Up option on their personal accounts. Employees also developed a new process at the cashier window where they would ask our customers if they would like to round up their bill or donate to the HYN program. In December alone (the month it was implemented), employees raised over \$800 for the program!

BTES' tree-trimming program helps keep our community beautiful. Our statistics show that the largest individual cause of interrupted electrical service is tree-related. We have an ongoing program designed to clear trees, limbs and brush away from lines. Our goal is to reduce the number of outages and costs associated with restoring service while maintaining our area's natural beauty and providing for the safety of our customers and employees. In April 2017, BTES received the National Arbor Day Foundation Tree Line USA Award for the 17th year in recognition of quality tree care, annual worker training, tree planting and public education. We have a representative on the local tree board and proactively create brochures and written articles in our customer newsletter and on our website to guide our customers in selection, planting and maintenance of trees. BTES is required to spend 10 cents per customer on community tree plantings and education as part of being a Tree Line USA recipient. Because trees are so important to BTES and our KSF, BTES far exceeds that expectation. In 2016, BTES spent 30 cents per customer to continuously educate and inform our customers on proper tree care and maintenance and community tree planting.

In 2016, BTES planted 388 dogwood trees through our Trade-a-Tree Program. Through this program, BTES will trade a tree that is a potential threat to the electric lines for a tree that is more suitable. BTES also plants a tree annually at a local school in celebration of Earth Day. Environmental concerns are important to BTES. We are active in Keep Bristol Beautiful along with annual community and lake clean-up efforts.

BTES is also actively involved in and committed to economic development. BTES has partnered with the City of Bristol, Tennessee; State of Tennessee; TVA; and NETWORKS to identify and assist businesses with expansion and relocations to the Bristol area. For the 25th consecutive year, BTES has maintained the Governor's Three-Star Community Economic Preparedness Program Award which signifies that Bristol, TN has the organization, attitude, facilities and skills to attract and retain industry. A major component of this certification is having available property for industrial development. The Bristol Industrial Park and the Bristol Business Park, purchased and developed by BTES, provide this component. Through our emphasis on economic development, we are able to bring new jobs and investments to our community.

BTES also provides ultra high-speed fiber optic connections in the community that offers speeds of ten gigabits per second to every business and home in the entire service area. This supports our emphasis on economic development by providing one of the fastest, most cost effective and reliable data services offered in the country. This helps to attract businesses to our area and supports the need for high speed data services. The New York Times reports that America is too focused on getting "average" bandwidth to the last five percent of the country in rural areas, rather than getting "ultra-high-speed" bandwidth to the top five percent who will invent the future. In the BTES service area, ultra-high-speed bandwidth is available to everyone!

BTES determines the above mentioned and other areas for organizational involvement by participating in business, community and civic activities that are vital to the growth and quality of life in our community. This is reviewed annually during our SPP, is listed in our key strategies in the SBP which is deployed to our workforce through the weekly CIT meeting and departmental meetings and is integrated through our mission.

2 Strategic Planning

2.1 Strategy Development

2.1a Strategy Development Process

2.1a (1) The SPP at BTES is an on-going initiative that culminates with the development of the annual SBP and the bi-annual SFS. The SPP reflects on previous years and outlines goals, objectives and strategies for the upcoming five years that can capitalize on BTES' KSF. The planning process is guided by senior leaders but involves employees from every department. The Board of Directors is appropriately involved in key aspects of the

SPP. They discuss and review current and future activities of the organization in public meetings, as well as attend industry meetings with senior leaders to gain further understanding of the strategic direction of the industry as a whole.

Figure 2.1-1 Purpose of the Strategic Planning Process

Preparation	Preparation requires key individuals to break our business into its component parts and evaluate each of those parts including implementation of total quality management techniques. Both large issues and details are addressed and considered. This process results in a better understanding of our business, our objectives and our strategies.
Working Document	The Strategic Business Plan, the result of the SPP, serves as a reference in decision making, in monitoring progress and as a reminder of the <i>who, what, why, when</i> and <i>how</i> that comprise the plan.
Objectives, Strategies and Action Plans	Require approval by our Board of Directors. Assures that the goals and objectives of those managing BTES on a day-to-day basis are consistent with those of the Board and, ultimately, our customers.

Data that have been gathered and analyzed throughout the year are further reviewed for potential blind spots and used to set future goals. Quality strategies are set as a method for achieving goals. The bi-annual SFS is developed in the Electric and Fiber Optic Engineering Departments to review longer-term system needs and goals. These studies provide input to annual goals set in the SBP.

The first four steps of the SPP encompass the development of the strategic plan. We develop the strategic plan using the following key process steps, shown in figure 2.1-3:

Step 1: Perform System Study

- Look at capital needs for the next five years.
- CEO and senior leaders review data.

Step 2: Analyze Inputs

- Determine inputs (figure 2.1-3) needed for SPP. This includes the review of the MVV and KSF. Sources are selected to eliminate blind spots.
- Assign appropriate senior leaders, employees and cross functional teams to collect and analyze the data from these inputs.
- Analyze and evaluate data to determine/confirm core competencies, strategic opportunities and strategic challenges.
- Prepare a report of the data with analysis.
- Analyze the organization's strengths, weaknesses, opportunities for improvement and threats (SWOT)

analysis). This includes input from the analysis of last year's strategic plan implementation.

- Discuss long-term sustainability and any strategic changes that need to be made to minimize any future risks related to long-term sustainability.

Step 3: Develop Goals

- Develop short-term, (1 year) and long-term (5 years) financial goals based on our KSF. Longer term goals (up to 20 years) are developed in bi-annual SFS.
- Senior leaders and employees define key goals to be competitively excellent now and in the future. One to five goals are developed based on the data analyzed in Step 2.

Step 4: Develop Objectives

- Determine objectives that are the best way to accomplish each goal.
- Utilize BTES' strategic opportunities and address the strategic challenges (listed in Organizational Profile).

BTES has set the long-term time horizon of five years. Five years is considered the longest period of time where there is enough stability in the data to make planning useful, but long enough to accomplish significant breakthrough changes. The short-term time horizon is set at one year as this corresponds with the budget time frame in which data are measured while providing enough time to achieve significant results.

The goals, objectives and strategies enable BTES to anticipate future issues and put in place the needed facilities, products and processes. Since progress against the plan and major items are reviewed weekly at the CIT and monthly at the Board meetings, new and unforeseen problems and opportunities can be rapidly assessed and the SBP modified when appropriate, which provides the needed organizational agility and flexibility.

2.1a (2) As discussed in 6.2d, BTES creates an environment that supports innovation through our CIT and continued focus on our KSF. Strategic opportunities are identified through the CIT and the annual SPP. Decisions to pursue strategic opportunities into intelligent risks go through our Design and Improvement process (figure 6.1-2). Strategic opportunities and innovations are deployed through our Communication Process and integrated through our focus on our KSF. Our key strategic opportunities are shown in figure 2.1-2 next to each strategic challenge that it helps address. Innovative examples that have been developed are also shown. A culture of excellence drives innovation. BTES strives to be

the best which may require solutions that are not common.

Figure 2.1-2 Strategic Challenges and Opportunities

Strategic Challenges	Strategic Opportunities	Innovative Examples
Attracting a Highly Educated Workforce	Community Support and Partnerships	Teacher/Industry Day, ETSU Partnership
Cost of Fuel	Keep Rates Low	Water Heater Program, Energy Savings Loan Program, Voltage Control Program
Technological Changes	Innovative Thinking	Fiber Optic System, Electric Vehicles and Charging Stations
External Facilities Threats (weather, animals, etc.)	Innovative Thinking	Voltage Control, Animal Guards, Automated Switching System
Power Supply	Educate and Assist Customers	School/Civic Groups Presentations, Website, Commercials

2.1a (3) Reliability, safety and financial outcomes are analyzed monthly. At a high level, the data analysis leads to the identification of BTES' strategic challenges and advantages. As senior leaders and others participate in trade organizations; educational opportunities; and communicate with peers, vendors and community partners, opportunities and potential blind spots are identified and either acted upon to improve the organization or, if the issues are strategic, discussed as part of the strategic process (Step 2). The SPP involves numerous CAP DOs which are reflected in our annual SBP and includes a list of upcoming major improvement projects such as engineering and construction projects, subdivision developments and additional enhancements to our fiber optic system.

We also look to others who have implemented new technologies and analyze how new ideas could work for us. We are a small business and have limited resources to perform experiments and tests, so we look to larger utilities for shared information. For example, a utility in St. Louis performed an experiment on the size of outside crews, analyzing the cost to complete a job based on the crew size. They tested crews with three to seven workers and found that the three-man crews were completing the job within 75-80 percent of the budget. The larger crews completed the job within 120 percent of the budget. We took this information, analyzed it and implemented changes accordingly which resulted in increased productivity and money saved.

Risks to our sustainability are identified and evaluated through communications with vendors, active participation

with trade organizations, regular research, analysis of current and possible changes to laws and regulations and their impact, local and national economic forecasts and feedback from customers. We continually compare our KSF to others and strive to keep our reliability and safety among the highest and costs among the lowest. For example, BTES strives to keep its employees per 1,000 customers consistent (figure 7.3-1). Over the years, we have been able to add new services but maintain our workforce size. This helped in both job security and productivity which benefits stakeholders. During the SPP, we analyze equipment to address shifts in technology. Long-term sustainability is evaluated based on our KSF, maintaining a highly educated workforce and participation in green initiatives.

Analysis related to potential blind spots comes from understanding as many of the key variables that could impact sustainability. Many technical aspects of providing electricity have not changed over time. Changes in this industry stem from customer demand and reliability expectations, particularly due to advancements in technology and cost of generating electricity. The CEO takes the lead in developing and projecting electric rates. Potential rate changes are communicated to customers. Electric load growth is projected through the bi-annual SFS and from data gathered when the Business Development Manager visits with existing industries and works with potential new industries. The Engineering Department is actively involved in the Home Builders Association and individual builders in an effort to remain apprised of future residential growth. In addition, the Supervisor of Electric Engineering is actively involved in weekly planning meetings with City officials to also remain apprised of future City growth.

Step 9 of the SPP is the annual systematic analysis of how well BTES' SPP performed. This includes analysis of process design, deployment and execution. This information is used to annually improve the process. The root causes of any problems and targets not met combined with benchmarking best practices result in recommendations and changes to BTES' SPP.

BTES executes our strategic plan through our communication process (figure 1.1-3). Copies of the SBP are available in each department and through shared computer files.

2.1a (4) Our key work systems, work processes, requirements and measures are shown in figure 2.1-4. These are reviewed and set during our annual SPP, deployed to the workforce through our Communication

Process and integrated through our KSF. Key work system decisions are made through our annual SPP, weekly CIT meeting and through the Directors of each work system. Decisions are deployed through our Communication Process and reviewed on an annual, monthly and weekly basis, as appropriate, to ensure alignment throughout our organization through our KSF.

Decisions on which key processes will be accomplished by external suppliers and partners and core competency considerations are made in Steps 2 and 3 of our Design and Improvement Process (figure 6.1-2). Listening methods, including supplier and partner communication, are listed in 3.1a1. Future organizational core competencies are determined during Step 2 of our SPP, and follow the SPP for deployment, annual review and integration throughout our organization.

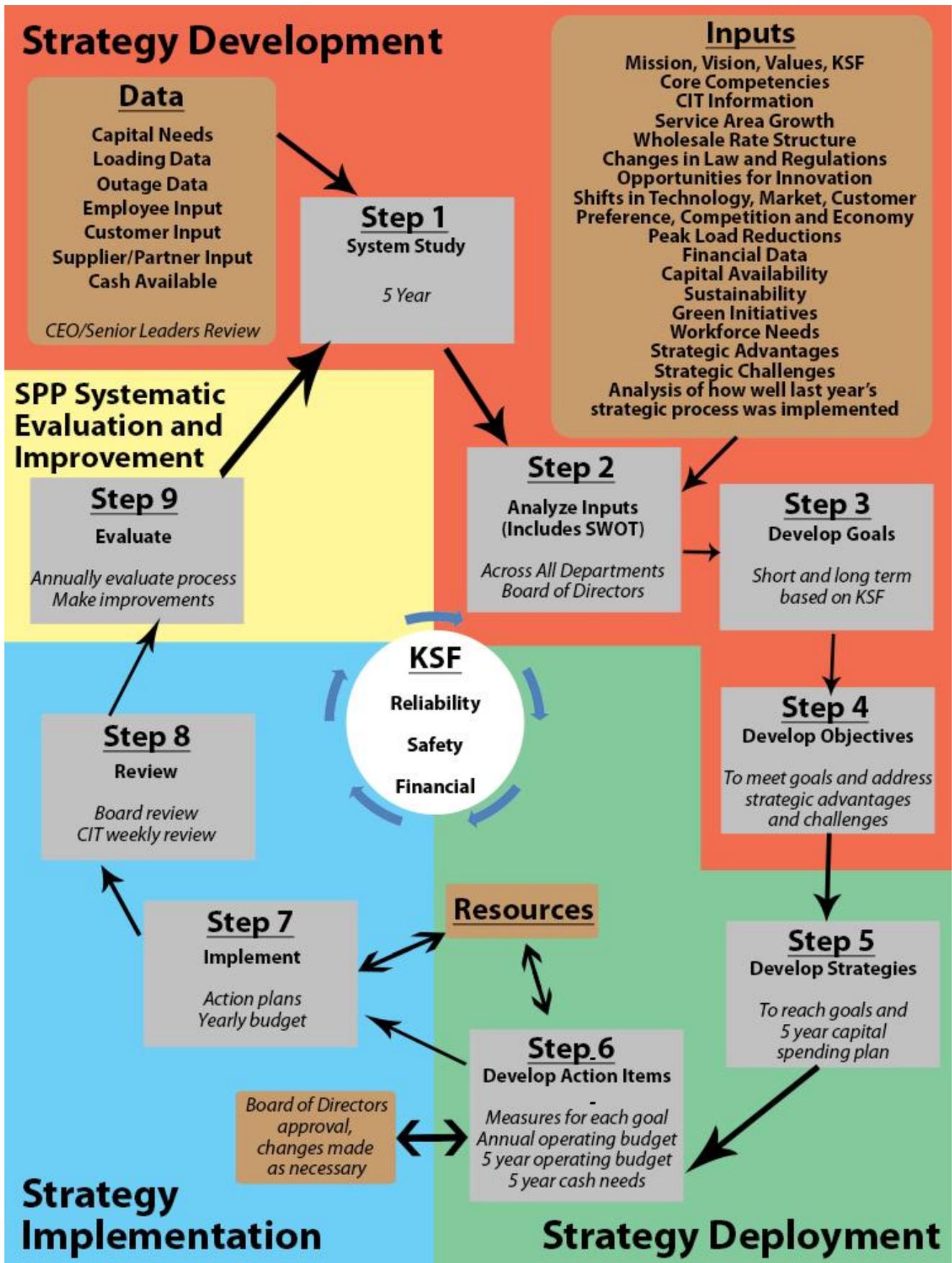
2.1b Strategic Objectives

2.1b (1) Key strategic goals, objectives and strategies are shown in figure 2.1-5. Our reliability goal is under 60 minutes of outage time per customer, per year. Our safety goal is zero lost-time accidents. Our financial goal is to continue to leave money in our customers' pockets and have resources available for improvements and expansion opportunities. The timetable for accomplishing strategic objectives is ongoing. There are one year and five year targets for each objective, described in 2.2a (6).

BTES' KSF of reliability, safety and financial have been built into the culture for over 30 years. In 2008, in partnership with a student team from ETSU we officially "set" the KSF to the things that were most important to BTES to succeed. The KSF then also included service and compliance. The KSF are reviewed annually through the SPP. In 2011, in going through the SPP with our CIT and another student team at ETSU, we saw an area to improve and become more focused on specific areas. During a CIT meeting, each member presented a list of things that BTES does exceptionally well and the things that are most important to BTES succeeding and being sustainable. The following week we discussed these findings, made the decision to change the KSF to Reliability, Safety and Financial, deployed them through our Communication Process and updated the SBP. Key processes and measures of each KSF are reviewed on a weekly, monthly and annual basis.

Many technical aspects of providing electricity have not changed over time, but we continue to research and implement innovative methods to deliver our products and services to exceed our customers' expectations. BTES is

Figure 2.1-3 Strategic Planning Process (SPP)



making significant improvements to our electric system by installing an Automated Switching System with the use of IntelliRupters. Once completed, BTES will be the only utility in the United States with a fully deployed automated system.

2.1b (2) During the SPP as senior leaders and others set strategic objectives, all strategic challenges, strategic opportunities and core competencies are reviewed and considered to ensure BTES is well aligned to its MVV and KSF. Strategic objectives are ongoing and action plans address the necessary time horizons. The SPP focuses on all three KSF, the one year and five year goals and plans ensure a balance in resource allocation among time horizons and stakeholders. The SPP considers and balances the needs of all stakeholders in Step 1 which includes reviewing data from capital needs, loading data, outage data, employee input, customer input and cash available. Step 2 of the SPP includes analyzing data from our CIT meeting, listening methods and review of our KSF, among others. This includes information from our customers, employees and community who are our stakeholders.

Our Board of Directors provides input in the SPP. In addition, all of our monthly board meetings are open to the public and input from these meetings roll into our SPP. For example, our partner organizations that help our customers pay their electric bills attended a board meeting and presented suggestions for helping customers. We performed a CAP DO based on this information and quickly improved processes.

2.2 Strategy Implementation

2.2a Action Plan Development and Deployment

2.2a (1) During Steps 3-6 in the SPP, BTES reviews and develops goals, strategic objectives and strategies to determine short-term and long-term action plans (figure 2.2-1) which are developed to take advantage of the key strategic opportunities while addressing the key strategic challenges. Short-term planning time horizons for action plans are reviewed weekly during the CIT meeting. These roll into the annual SBP which outlines time horizons for the following year. Longer-term planning time horizons are reviewed in the SPP and the bi-annual SFS.

2.2a (2) The deployment process is as follows:

Step 5: Develop Strategies

- Analyze; perform analysis to determine strategies that are the best ways to accomplish each objective.
- Develop five year capital spending plan.

Step 6: Develop Action Items

- Analyze; perform analysis to determine the action items that are the best way to achieve the strategies.
- Determine measure(s) for each goal.
- Balance resources with action items and goals.
- Develop current year operating budget including resources needed to implement action items.
- Develop five year operating budget.
- Determine five year cash needs.

Step 7: Implement

- Execute action plans including deployment to the workforce and necessary suppliers and partners.
- Deploy yearly budget.

Figure 2.1 4 Work Systems and Processes

Work Systems	Key Work Processes	Key Requirements	Key Measures
Engineering	Design & Support the Electric and Fiber Optic System	Reliable Safe Cost Effective Exceed Expectations	<ul style="list-style-type: none"> • Outage Time Per Customer • Average Incident Rate Per Year • Average Number of Days Away from Work Cases • Average Service Availability Index • Customer Satisfaction / Engagement
Operations and Safety	Maintenance & Construction of BTES Systems	Reliable Safe Cost Effective Exceed Expectations	<ul style="list-style-type: none"> • Outage Time Per Customer • Average Incident Rate Per Year • Average Number of Days Away from Work Cases • Average Service Availability Index
Management Services	Workforce & Customer Support	Reliable Safe Cost Effective Exceed Expectations	<ul style="list-style-type: none"> • Outage Time Per Customer • Average Incident Rate Per Year • Average Number of Days Away from Work Cases • Employees Per 1000 Customers • Perfect Attendance • Professional Development Reimbursement Participation • Customer Satisfaction / Engagement
Accounting & Finance	Financial Management	Reliable Safe Cost Effective Exceed Expectations	<ul style="list-style-type: none"> • Outage Time Per Customer • Average Incident Rate Per Year • Average Number of Days Away from Work Cases • RLPC & Rate Comparisons • Electric Bad Debts as a % of Electric Retail Revenue

Step 8: Review

- Board reviews financial and other goals.
- CIT reviews weekly to determine progress and if the desired results are achieved. If not, immediate action is taken and reported at the next CIT meeting.

Senior leaders and supervisors have a copy of the annual SBP and employees have access to copies in the break room, in their departments and through shared folders. Action plans and measures (figure 2.2-1) are deployed to individuals in each department through weekly meetings, weekly and monthly reports and the SBP as necessary.

Action Plans are deployed to necessary suppliers and partners through project meetings and one-on-one communication. Suppliers and partners that play a major role in the action plan are involved from the beginning, helping to develop the plan and working together for the best possible outcome. BTES has a fully integrated feedback loop process with our suppliers – both key and secondary that involves daily, weekly, monthly and annual meetings (as necessary depending on depth and scope) to discuss OFIs and positives for both the supplier/partner and BTES. For example, the Supervisor of Purchasing and Stores meets with each key material vendor on a minimum of a bi-weekly basis to discuss areas of improvement, positives and other opportunities. Some recent process improvements include updating our bid sheets and developing an open work order process. Other employees that have key relationships with suppliers and partners follow the same process.

The resource availability for action plans is assured as part of the SPP (Steps 6 and 7). Through CAP DO, outcomes are standardized and sustained through process changes that are made and incorporated into work processes and reviewing process measures for each goal (figure 2.2-1) to ensure results are sustained. Favorable outcomes are sustained by continuous review in the weekly CIT and departmental meetings of all key measures.

2.2a (3) During the annual SPP, senior leaders review the budget plan from the previous year and prepare a plan for the following five years. This includes reviewing objectives, strategies and goals for the organization to ensure financial and other resources are available.

Resource planning is part of Step 1 in the SPP when capital needs and cash available is reviewed. Each department is responsible for reviewing and preparing their budgets according to the needs of upcoming projects. Resource planning includes workforce needs. This includes looking at upcoming projects and action plans and analyzing the costs and availability of our workforce. These are balanced to assure that there are sufficient resources for the approved action items. During the SPP, analysis is done to assure the resources needed for the action items match the resources BTES has available or can obtain.

The Accounting and Finance Department works to ensure that financial resources are managed so there are adequate resources to accomplish goals. Customer numbers and financial data are compared and reviewed monthly by the Board of Directors and key employees. Cash is managed so that return on the investments is optimized, but money is available as needed and in a timely manner. Step 8, the Review, provides the information if a given action item needs more, less or different resources than were originally planned. Decisions related to the resources are made during the review meeting. The financial planning assures that reasonable additional resources are available, if needed.

2.2a (4) BTES' key workforce plans to accomplish short and longer-term objectives, strategies and action plans are developed and reviewed annually during the SPP to ensure appropriate staffing and skill sets are available. This includes planning for staffing needs and any additional skill set that might be needed. Part of the resource planning is to assure the resources are available for any workforce plan needed to accomplish the objectives, strategies and action plans.

This is not only reviewed and documented during the SPP and SBP, but is also an ongoing initiative through the management services department. During the weekly CIT meeting, key action plans are reviewed and any workforce changes that need to be made to keep the action plans on track and effective are discussed and planned for accordingly.

Figure 2.1-5 – 2017-2018 Goals, Objectives and Strategies*

*Step 3 - Goals	Step 4 - Objectives	Step 5 - Strategies
<p>1 – Deliver safe, reliable, cost-effective electric, Internet, telephone and cable television services to our customers.</p>	<ul style="list-style-type: none"> • Operate and maintain the electric system so that the average outage time per customer is less than one hour per year. • Install, operate & maintain a fiber optic network. • Provide service to any customer in accordance with the requirements and policies established. • Maintain procedures that meet or exceed requirements for reliability, safety and financial. • Maintain equipment and training programs. • Be a good corporate citizen. 	<ul style="list-style-type: none"> • Maintain distribution tree trimming on a five-year cycle. • Utilize and maintain PORCHE system and outage reporting technology. • Maintain an electronic mapping system. • Automate system records and functions. • Maintain the distribution transformer capacity ratio. • Sponsor employee training and education. • Maintain equipment replacement and preventative maintenance program. • Participate in business, community and civic activities. • Participate as a member of the Tennessee One-Call System. • Utilize fiber system, automation system and leverage advancements
<p>2 – Maintain financial strength and integrity while effectively utilizing financial resources to contribute to efficient operation.</p>	<ul style="list-style-type: none"> • Provide budget and accounting processes that support effective planning and control of resources, appropriate protection of assets and timely collection of receivables. • Assure adequate working capital components • Obtain maximum return available on investment or use of financial resources in accordance with legal limitations and prudent practice. • Maintain a financial position to earn a quality rating for electric revenue bonds. • Pay the maximum allowable in-lieu-of-tax. • Maintain our accounting records to ensure fair presentation of financial records. 	<ul style="list-style-type: none"> • Perform and analyze comparisons with peer utilities. • Continue to improve collection procedures. • Maintain internal controls and internal audit programs. • Maintain insurance in force to protect from catastrophe. • Continue to look for the best return on cash investments while maintaining safety. • Continue to work with TVA, our independent accounting firm and the State of Tennessee and continue our education/training pursuits to ensure we are technically and ethically competent to fairly reflect our financial status.
<p>3 – Maintain retail rates that are fair, reasonable, non-discriminating & consistent with sound business practices, long-range financial goals & cost of service philosophy.</p>	<ul style="list-style-type: none"> • Continually analyze costs versus fees collected. • Treat customers fairly, reasonably, consistently. • Operate within a budget to keep operating costs under control. • Ensure our system is adequately funded to maintain its physical soundness. • Offer a competitive and reliable energy source. • Ensure adequate supply of electricity at competitive rates. • Offer Internet, telephone, cable and other services to offset costs of the fiber optic system. 	<ul style="list-style-type: none"> • Monitor our service costs to ensure proper matching of fees. • Continue cost-monitoring practices internally. • Fund the depreciation reserve to offset costs of upgrades. • Install and maintain water heater switches • Continue to work with TVA and TVPPA Rates and Contracts Committee. • Market heat pumps through the Quality Contractor Network. • Analyze the trend toward deregulation. • Continue to investigate other avenues of revenue generation.
<p>4 – Market BTES and its products and services while meeting current and future customer needs.</p>	<ul style="list-style-type: none"> • Develop additional load. • Provide customers with assistance in making informed decisions. • Maintain marketing and load management strategies and programs. • Play an active role in the economic growth and development of our service area. • Maintain communication with local industries. • Enhance the fiber services in order to make the installation to homes and businesses financially viable. 	<ul style="list-style-type: none"> • Install 500 residential water heaters. • Install 100 electric heat pumps. • Sign up approximately 600 customers to use fiber services. • Promote the use of electrical energy. • Promote all electric homes. • Promote In Home Energy Evaluations programs. • Identify and contact new and existing industry prospects. • Assist customers to develop sales of electric energy. • Provide heat pump inspections to customers installing heat pumps. • Install water heaters within four days of request. Provide warranty replacements within 24 hours in emergency situations. • Provide advertisement and customer communications. • Provide an optional Surge Protection Program.
<p>5 – Utilize employees to efficiently serve customers.</p>	<ul style="list-style-type: none"> • Maintain and improve employee productivity in meeting our service objectives. • Adopt and administer policies and practices which provide for open and positive employee/employer relations. • Maintain a compensation & benefit package to attract & retain competent & productive people. • Develop and maintain work practices which provide a productive and safe work environment. • Continuously improve. 	<ul style="list-style-type: none"> • Promote or recruit the best candidate matching job requirements. • Identify needs and provide training and education to encourage employee development and meet changing job responsibilities. • Conduct and participate in periodic and valid compensation and benefit surveys to assure our competitive standing is maintained. • Maintain our 4-1/2 year apprentice program. • Maintain the excellent current position of employees per customer. • Provide an organizational structure which maximizes efficiency & productivity.
<p>6 – Create awareness of our services through promotion.</p>	<ul style="list-style-type: none"> • Provide accurate and useful information. • Provide information on financial status & plans. • Provide information on energy, energy-related issues and impacts on customers. • Provide employees with information to help them understand, communicate and perform. • Influence state and federal legislation that is in the best interest of our customers. 	<ul style="list-style-type: none"> • Provide accurate and timely information about our activities, programs, policies and plans through communications. • Provide accurate and timely handling of inquiries. • Conduct research. • Participate in the APPA, TVPPA, TMEPA, FTTH Council and TNFOC. • Develop & maintain contact with business leaders, professionals, etc. • Maintain Customer Communication Campaign

*abbreviated – full version available on site including timetable, see figure 7.4-7 for measures.

Figure 2.2-1 – Action Plans and Measures *Abbreviated – full version available on site*

Goal	Step 6 – Action Plans	Steps 14 & 15 – Measures
1	<ul style="list-style-type: none"> Track outage information to identify areas to be addressed by teams. Track system load trends over time to ensure reliability and facilitate cost effective operations 	<ul style="list-style-type: none"> Outage Time (7.1-1) Average Service Availability Index (7.1-12) Money Left in Customers Pockets (7.1-3) Electric Bad Debts (7.5-1) Average Incident Rate Per Year (7.3-2) Average # of Days Away from Work (7.3-3)
2	<ul style="list-style-type: none"> Gather, utilize and compare pertinent data to analyze rates, financial data and operating ratios. Ensure we have adequate insurance coverage at a competitive price. Continue our designation as a State Drug-Free Workplace. Continue working to ensure the best return on cash investments. Monitor cash and cash investments to assure adequate working capital. 	<ul style="list-style-type: none"> CAFR GFOA Award (7.1-7) RLPC, Money Left in Customers Pockets (7.1-3) In-Lieu-of-Tax Payments (7.5-2) Electric Bad Debts (7.5-1) Market Share (7.5-4-8)
3	<ul style="list-style-type: none"> Cost monitoring will include benchmarking with regional and world-class power and telecommunications companies. Survey all customers who purchase a water heater, have a heat pump inspected or have fiber optic services installed. Continue our close partnership with TVA to help & encourage them to control costs, maintain reliability & ensure adequate electric supply. 	<ul style="list-style-type: none"> RLPC Money Left in Customers Pockets Electric Bad Debts as a % of Electric Retail Revenue Water Heater and Heating System Take Rate Breaches in Ethical Behavior
4	<ul style="list-style-type: none"> Track and benchmark results Gather trend data from water heater, heat pump & fiber customers. Gather and trend data on new home heating and cooling installations and new fiber optic installations. Evaluate communications. Work with TVA to develop/refine energy service programs. Conduct annual visits with existing industries to identify economic development opportunities Participate in national showcasing events 	<ul style="list-style-type: none"> Monthly OFI Average and Total Services (7.1-9) Total BTES Services (7.2-16) Water Heater and Heating System Take Rate (7.5-7,8) Customer Satisfaction and Dissatisfaction (7.2) Fiber Performance (7.1-4-6) Net Promotor Score (7.2-17, 18) Communication Results (7.2-5) Fiber Surveys (7.2) Potential Job Growth (7.4-3)
5	<ul style="list-style-type: none"> Utilize the Quality Performance Committee to integrate the Business Plan with Baldrige and other quality initiatives. Continue to train all employees in team processes. Continue to evaluate performance appraisal system. Document quality training efforts. Continue to create an environment with feedback from employees Monitor our employee development process. Work with schools/organizations to recruit the best qualified candidates. 	<ul style="list-style-type: none"> Employees per 1,000 Customers (7.3-1) Workforce Development Participation (7.3-6) Performance Appraisal Process SMART Perfect Attendance (7.3-4) Employee Retention (7.3-5) Ethical Behavior (7.4-2)
6	<ul style="list-style-type: none"> Track and benchmark results Gather customer feedback data Utilize data to identify and prioritize OFIs in customer awareness. Target monthly customer communication campaigns to ensure relevancy 	<ul style="list-style-type: none"> Survey Data (7.2) Monthly OFI Average and Total Services (7.1-19) Total BTES Services (7.2-16) Communication Results (7.2-5)

As a result of BTES’ highly educated and skilled workforce, employees are capable of performing different tasks. Cross-training and cross-functional teams prepare the workforce for changing needs and workforce growth. Senior leaders and supervisors also stay attuned to workforce needs in areas of support and training, in addition to salary and benefits. This helps prevent workforce reductions. BTES prevents workforce reductions and helps provide competitive salaries and benefits by consistently meeting our goal of the number of employees per 1,000 customers (figure 7.3-1). See 5.1a1 for our systematic process for addressing potential changes in capability and capacity needs.

2.2a (5) The strategic plan includes key performance measures (figure 2.2-1), which are well aligned with our MVV and KSF thus reinforcing organizational alignment and direction. These measures are well deployed to cover all key areas over both the short and long-term.

Key performance measures include power outage time; number of hours, days and years of working without a lost-time accident; and rates. Training needs are identified as these data are analyzed and processes are developed and deployed through SMART.

2.2a (6) The SPP includes key performance measure projections for both the short-term and long-term. Key projections for comparable others are reviewed on a weekly basis during the CIT and an annual basis during the SPP and updated in the SBP. These are based on industry knowledge, knowledge of comparable others and their actions, the analysis of historical trends and available published data and benchmark comparisons. These are deployed through our communication process and through the SBP.

Performance Projections are documented in our SBP in the section titled “Looking Ahead.” This section details the projections for the upcoming year and describes the actions we intend to take to maximize the opportunity to

achieve these projections. There are no projected performance gaps against comparable others because we are the best in class in many areas important to BTES' KSF, as shown throughout Category 7.

2.2b Action Plan Modification

We establish and modify action plans (Step 8 of the SPP) through our employees' continual use of the CAP DO process. Any changes that will be needed are considered during the weekly CIT meeting. Approval of changes and corrective actions can happen very rapidly, since the CEO, senior leaders, and representatives from all departments participate in the CIT weekly meeting. This also provides a good measure of protection against risk because many different viewpoints are available and are part of the decision making process.

Action plans are listed in the SBP. Every supervisor has a copy of the SBP as well as copies are available in every department and in the break room. Changes to the action plans are deployed through our communication process.

Step 9: Evaluate

- Annually evaluate the SPP and make improvements as needed.

3 Customer Focus

3.1 Voice of the Customer

3.1a Customer Listening

3.1a (1) BTES listens to, interacts with and observes our customers through numerous methods:

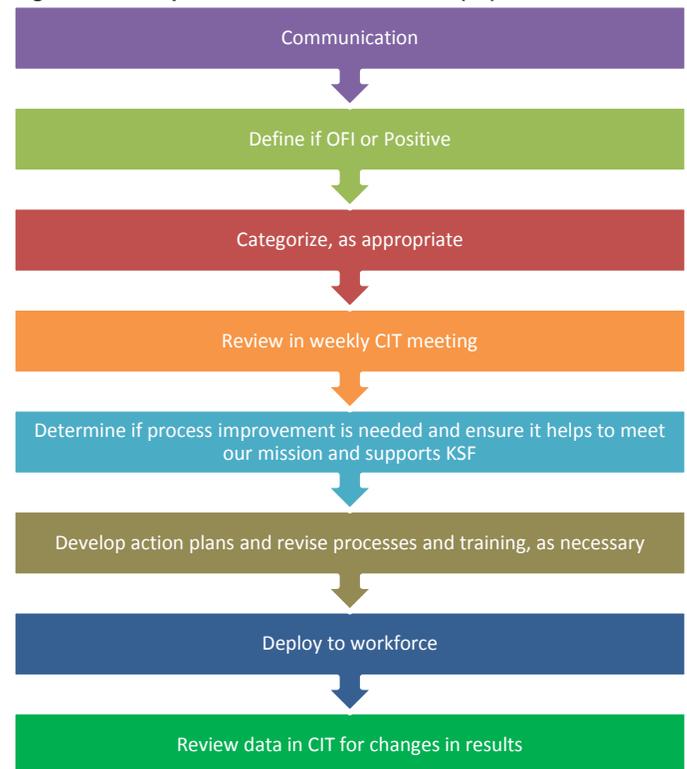
Listening Methods	
Employees are customers	BTES Contractors
Centrally located office	Customer Newsletter
Telephone calls	City Council
Walk-ins	Board of Directors
Employee involvement on boards and in other organizations	BTES Existing Industry Program
Employees work in the field	TVA
Website	State regulators
Social Media, Email	Better Business Bureau
Surveys	Chamber of Commerce

BTES listens to all customers to get actionable items and feedback (figure 3.1-1). Customer feedback, positives and OFIs, is tracked from all of these methods, reviewed weekly by our CIT and analyzed for potential gaps, trends and improvement opportunities. Since all departments are represented in the CIT, the data is correlated among the different sources and compared against each department, allowing us to confirm the conclusions drawn from the

data. In the weekly review, the current data is analyzed and then compared to historical data (prior week, month, year, etc.) in order to continue to identify trends and improvements. Departments select from this data the largest OFI and do an improvement review to find the root cause to reduce or eliminate the problem.

Employees are required to live in the BTES service area, providing them with constant customer interaction. Our customers are our neighbors, friends and family. The BTES office is centrally located in our service area so that our Customer Service Department has day-to-day in person, telephone and email customer contact. This allows us the opportunity to stay in contact with our customers and meet their needs one-on-one. Another important component is that many employees spend all or most of their day in the field. This provides numerous opportunities to interact with our customers.

Figure 3.1-1 - Improvement Initiative Process (IIP)



The systematic process for collecting information obtained from these interactions with customers is the actionable item, from identifying the need through its resolution, and the interaction feeds into our OFIs and positives. Different departments utilize different collection methods based on how the interaction originates. BTES' high level of involvement in the community, sponsorship of community events, and representation in local civic clubs builds relationships with our customers (see 1.2c) and provides us the opportunity to gain positive referrals.

In order to listen to our business and industrial customers, BTES personnel visit with existing industries through our innovative Existing Industry Program to gauge customer satisfaction and to build and develop customer relationships. In calendar year 2016 alone, our employees conducted more than 170 visits with businesses and industries. An existing industry report sheet is completed for all large industrial customers during each visit for the individual industry being visited. Information from the visit is recorded, reviewed, analyzed and processed into our IIP (figure 3.1-1). Information is deployed as appropriate through our communication process (figure 1.1-3) which takes customer input and turns it into appropriate actions and also provides aligned input into our SPP.

BTES uses our website to gain feedback from our customers as well. Customers take advantage of our contact forms on a regular basis to provide feedback, make suggestions and ask questions about services. This feedback is deployed by the Customer Service Department to the appropriate department for action and response which is then fed into our weekly CIT meeting to review for improvements. This information is fed into and aligned with our SPP, as appropriate. BTES monitors social media channels including Facebook, Twitter, LinkedIn, YouTube, local media outlets and others to listen to our customers. Information received through these methods are deployed to the appropriate department, actions are taken as necessary, and each communication is reviewed in the weekly CIT meeting to bridge gaps and identify OFIs for our organization.

BTES listens to customers in each stage of the customer life cycle. We communicate with every customer, either in person or by telephone, as they apply for services, have questions regarding their services and when they disconnect their services. CSR communications with customers are notated on their account. The information noted contributes to our OFIs and positives, which are systematically reviewed by our CIT to analyze trends, OFIs and cycles of learning. This information is then fed into our SPP, as appropriate. A variety of methods are used to follow up with customers to get prompt and actionable feedback. CSRs must return all voicemails, abandoned calls and emails the same business day and make any follow up phone calls as necessary. An abandoned call report is generated at 15 minute intervals with the final report of the day indicating if all abandoned calls have been returned.

BTES surveys our customers at different stages of the customer life cycle. To determine satisfaction levels and quality of service, customers are surveyed following the

installation of their fiber services, following the installation of a heat pump financed through BTES and then again after one year and after five years, and following the installation of a water heater purchased through BTES. Beginning in 2014, BTES conducts a bi-annual CSS.

BTES reviews our listening methods weekly during our CIT meeting and annually during our SPP to ensure the most effective methods are being used. All customer listening methods must help BTES achieve its mission. As changes and improvements are made, they are deployed through our communication process. Our listening methods are aligned through BTES by providing input into our SPP and helping us be successful through our KSF.

3.1a (2) Potential customers are identified through listening methods including our Supervisor of Engineering attending the weekly City of Bristol meeting to discuss future expansions and planned subdivisions. Our Business Development Manager makes regular contact with local industries to discuss their needs, expansion possibilities and their satisfaction with the service they are receiving. Her economic development efforts are considered some of the best. She assists the University of Tennessee with training other economic developers and meets weekly with community partners such as the City of Bristol, TN and NETWORKS to stay abreast of what is happening in our community and surrounding areas. Findings from these listening methods are deployed and reviewed during the weekly CIT meeting and provide input into our SPP, specifically for planning and budgeting for new businesses coming to our area.

In 2016, BTES worked with the City of Bristol, TN; State of TN; TVA; and NETWORKS to identify and assist three businesses with expansions or relocations to the Bristol area, resulting in the potential for 754 new jobs. This number is tracked each year.

Potential customer information is reviewed during the SPP and is documented in the annual SBP. Previous projects are reviewed and major upcoming projects (subdivision developments, industry expansions, etc.) are documented. Capital needs are reviewed on an annual basis and five year budgets projections are made. All major projects are placed in our bi-annual system study.

BTES also listens to potential customers via our website and feedback we receive from customers who are moving to our area. This information follows the same process as listed above. This provides an opportunity for BTES to systematically listen to customers of other electrical

systems since almost all of our new customers were previous customers of other utilities.

BTES listens to former customers when they contact BTES to disconnect their services. CSRs discuss with customers their reason for disconnecting to find ways to continue to improve our products and services, to improve our community and to increase the economic vitality of our community. When a customer requests disconnection, this communication is notated on their account. The information is deployed, reviewed for improvements and aligned through our weekly CIT meeting and SPP.

3.1b Determination of Customer Satisfaction and Engagement

3.1b (1) BTES has several ways to assess customer satisfaction, dissatisfaction and engagement. Many of the methods allow for immediate, actionable information for analysis that is used for process improvement (figure 3.1-1) or input into the SPP.

BTES uses a third party to conduct a bi-annual customer survey to determine satisfaction, dissatisfaction and engagement levels of our customers as well as market share of our services. The survey addresses customer attitudes and opinions on their experience and satisfaction with their BTES services, and what factors were valuable in deciding to choose our services. Overall satisfaction with BTES scores 19 points higher than the benchmark with reliability also scoring 19 points higher than the benchmark. See 7.2-15 for results.

To determine satisfaction and dissatisfaction levels and quality of service, customers are also surveyed following the installation of their fiber services (figures 7.2-9, 7.2-10, 7.2-11), following the installation of a heat pump financed through BTES (figure 7.2-14) and then again after one year and after five years, and following the installation of a water heater purchased through BTES (figure 7.2-13).

Customer satisfaction and dissatisfaction is also measured through our reliability and rates. BTES customers are satisfied when their electric is on. When they experience a power outage, they are dissatisfied. According to 2016 outage data, BTES has a 99.989% customer satisfaction rate (figure 7.1-12). BTES keeps record of customer communications through emails, customer interaction and newsletter comments complimenting BTES on our high reliability rate and the quickness in restoring power outages.

BTES electric rates also play a role in customer satisfaction. Our customers want the most cost effective

service, and therefore are more satisfied when they pay lower rates. BTES provides lower electric rates than both neighboring utilities and the national average even though TVA local power companies pay the same price to TVA for their electric service.

Our IIP (figure 3.1-1) is another method of measuring customer satisfaction, dissatisfaction and loyalty. Each department tracks their communications as OFIs and positives and presents them to other team members and senior leaders for review (figure 7.1-9). Each department selects their highest OFI and does an improvement review to find ways to reduce or eliminate the problem which is then reported at the next weekly meeting. This ensures that tracking communications leads to actionable information and process improvements.

We also measure services purchased per customer which is a direct indicator of customer engagement (figure 7.2-16) and market share (figures 7.5-4–7.5-8). This number continues to increase, showing that our customers are engaged. If our electric customers were not engaged with us, they would not continue to purchase our other services. Our bi-annual customer survey also measures customer loyalty and BTES scores 15 points higher than the benchmark.

BTES also utilizes the Existing Industry Program to determine customer satisfaction, dissatisfaction and loyalty. During an Industry Annual Visit, the Business Development Manager goes into the community to visit with Industrial and Commercial customers face-to-face to identify threats to staying in business, possible community obstacles and opportunities for assistance with growth of new jobs, electric load and new investment in the community. This program is a preventative and proactive approach to identifying potential red flags and gaps that could result in the company leaving the community. The feedback from this innovative listening method is integrated into the IIP (figure 3.1-1) of BTES.

3.1b (2) TVA is the primary source of information for comparing ourselves to other electric distribution utilities on reliability and rates. Other sources include: APPA, TVPPA, TMEPA, EPRI and individual utilities. BTES' top comparisons are on our KSF of providing reliable, safe and cost-effective electric service. BTES is best in class in all of these areas. Comparable data and resources are reviewed on an annual basis during our SPP to ensure the most effective methods and best resources are being utilized and to ensure alignment through our KSF. Data from these resources is discussed in our weekly CIT meeting and deployed by our communication process,

weekly departmental meetings, postings throughout the BTES building and the monthly employee newsletter.

Information on satisfaction levels is conducted through our bi-annual customer survey and other research during our SPP. BTES scores five points higher than our competitors in overall satisfaction with Internet and ten points higher on how likely they are to recommend their Internet services to others.

Methods to determine satisfaction levels relative to our competitors are reviewed on an annual basis during our SPP, as well as during our CIT. Results are reviewed on a monthly basis and deployed through our communication process. All surveys and inputs are integrated through a focus on our KSF and relation to our mission.

3.2 Customer Engagement

3.2a Product Offerings and Customer Support

3.2a (1) All customer needs and product requirements are determined through our weekly CIT meeting and annual SPP. Our continuous improvement culture helps to identify and adapt product offerings and expand current relationships with customers.

To simplify the process, BTES asks our customers their needs and requirements through surveys, one-on-one communication and other methods as listed in 3.1a1.

Specific survey questions include:

- What one thing would you suggest to improve your current service?
- What factor would cause you to move to a new service provider?
- How can we serve you better?

Answers to these questions (and others) quickly help us to identify customer requirements that we may not be meeting and helps us to adapt products and services to serve our customers better. Survey results are reviewed monthly to determine level and trend data. Any issues are addressed immediately and distributed to the appropriate department. Survey results are calculated through our IPP and integrated into our SPP. Survey questions are reviewed annually to ensure consistent and accurate data and that we are asking appropriate questions. Changes are deployed through our communication process.

All feedback gathered from our listening methods is integrated into our IIP. Customer contact data is funneled through our continuous improvement data, sorted through a variety of categories (by department, by subject),

ultimately resulting in the customer contact being identified as either a positive or an OFI. As OFIs are identified, BTES uses the CAP DO process to implement improvements to the product and service offerings. These findings are then reviewed during our annual SPP.

BTES also obtains actionable information through our listening methods. By using these methods, we receive immediate feedback on our products and services. BTES listens to our customers through contact with BTES. Each customer communication whether by email, phone call or personal contact is identified as a positive or an OFI. This feedback is documented and discussed during our CIT meeting and action plans are developed, if necessary. Action plans are then rolled into our SPP, as necessary, and are reviewed annually to ensure customer needs are being met and that they are aligned with our organization through our MVV.

Employees attend meetings, seminars, conferences and conventions inside and outside of our industry to gather and share data and information about new services and products. These events also provide us with the opportunity to stay up to date on customer issues surfacing in other utilities and industries.

3.2a (2) BTES determines key mechanisms (listed in 3.1a1) to support the use of our products and enable customers to seek information and conduct their business with us by interacting with our customers in their businesses in person either at our office or in the field and living in the same community. Key support requirements are reviewed during our SPP to help in the development of our goals and strategies and to ensure customer support needs are being met. BTES reviews what methods work best and determine OFIs annually during our SPP and weekly in our CIT meeting. These findings are deployed through weekly departmental meetings.

The BTES Business Development Manager makes regular contact with local industries through our Existing Industry Program to discuss electrical and/or fiber optic needs, expansion possibilities and their satisfaction with the service they are receiving. She assists the industries in identifying threats to their business or impediments to growth and/or expansion. She is able to assist in locating helpful resources available from area agencies, educational institutions and the government.

BTES also provides customer support and information, as well as feedback forms, on our website. Customers can find current and previous months' electric rates, tips on saving energy, opportunities to sign up for additional

services, information on our economic development efforts, and support for our products and services. The website is reviewed on an on-going basis to ensure information is relevant and provides the best information possible to continue to meet our customers' needs and exceed their expectations.

Several Departments have constant face-to-face and over the phone interactions with customers every day. All employees within these departments have been trained through SMART to effectively listen to the voice of the customer and provide feedback to supervisors and senior leaders if an issue develops. In addition, all employees are required to live in the BTES service area. This allows employees the opportunity to have the same experience as our customers, constant customer interaction and quicker response times.

Additionally, BTES' surveys ask the question, "How did you hear about us?" This helps us to determine what methods are working well and what methods need revamping to reach our audience. BTES customers rate our communication methods (communicating with and informing our customers) 26 points higher than the industry benchmark. Additionally, our customers rate BTES Customer Service 11 points higher than the industry benchmark demonstrating our commitment to our mission.

3.2a (3) BTES has two classes of customers: general power and residential. BTES keeps approaches for identifying and innovating product offerings and for providing customer support current with business needs and directions by maintaining our IIP and monitoring industry standards. While there are two segments of BTES customers, the listening methods and processes in gathering information are the same. Further breakdown of those two customer groups can extend to additional services they purchase from BTES.

3.2b BUILDING A CUSTOMER CULTURE

3.2b (1) BTES builds and manages relationships to obtain new customers by working with subdivision developers to provide incentives for building all electric homes with inspected heat pumps, load-managed water heaters and fiber optic services.

Our Business Development Manager also works to obtain general power customers through one-on-one contact, incentive programs and attending development opportunities where new industries would be present. All OFI and positive data roll into our IIP through our CIT

meeting which are reviewed on a weekly basis. Continued growth and addition of jobs show value to BTES. BTES monitors this by tracking the number of businesses assisted and the number of potential new jobs added. These numbers are also submitted to NETWORKS to include in their annual report.

BTES customers are committed to our products because we serve their needs and build relationships with them through living in the community, supporting business development efforts and providing low levels of electric service interruptions at a price that is lower than surrounding utilities, as discussed in 3.1a and 3.2a. We provide more services, like fiber services, water heater management, etc. to provide additional opportunities for our customers to be engaged with us.

BTES monitors social media channels including Facebook, Twitter, LinkedIn, YouTube, local media outlets and others. These listening methods are tracked through our CIT.

3.2b (2) Our complaint process carries out two functions: restore/maintain the customer's goodwill and to prevent the same cause in future complaints by analyzing the data and adjusting the process or policies, as needed.

As a part of our IIP, BTES looks at each complaint as an OFI. Each department tracks their OFIs, categorizes them and then chooses their most important process improvement initiative. In various cases, a process improvement initiative will require a cross-functional team to be developed. Weekly, each department reports their OFIs and what process or processes they are working on to help eliminate them. Decision making is expected and encouraged at every level which empowers the workforce to resolve issues. However, supervisors and senior leaders are available if a customer complaint requires immediate action that cannot be handled to the customer's satisfaction at a lower level. CSRs are trained through SMART how to handle customer complaints depending on the situation and events. They are tested quarterly on these training modules to ensure consistent processes are being used. Our customer complaint process (figure 3.2-1) is reviewed on a quarterly basis to ensure it is the most effective method to manage complaints. Improvements are made to support processes, as needed, to help alleviate complaints and to proactively answer a customer's question before they have to ask it. Our Customer Complaint Process is integrated throughout our organization through our mission of exceeding expectations.

Figure 3.2-1 Customer Complaint Process



4 Measurement, Analysis, Knowledge Management

4.1 Measurement, Analysis, Improvement of

Organizational Performance

4.1a Performance Measures

4.1a (1) BTES selects data that are going to help achieve our mission. Data are selected annually during our SPP and are related to our KSF. Data are reviewed on an on-going basis to ensure alignment and relevance. Data are used to support fact-based decisions that set and align our organizational direction.

We collect data through our IIP, numerous methods in relation to our KSF and departmentally, as appropriate. Through our IIP, every communication received from customers is categorized into either a positive or an OFI. The communication is further categorized into subgroups that assist BTES in driving down OFIs and increasing positives. The IIP and methods of communication are detailed in 3.1a(1). Annually, senior leaders and key employees review data collected throughout the year as part of the SPP detailed in 2.1a to look for systematic root causes that would require significant changes to BTES' data selection and collection processes.

The Accounting and Finance Work System gathers financial data each month and compiles the information into financial statements soon after each month ends. The financial statements compare the current month's position to the prior year's ending position, as well as to the budget. Statistical information relating to energy sales, heat pump and energy savings loans, water heater and

fiber service installations and rates is reviewed monthly. Financials and statistics are reviewed by senior leaders and presented at the monthly Board Meeting. During this review, organizational performance, strategic objectives and action plans are evaluated to determine that they are on target, taking action as appropriate.

The Management Services Work System gathers human resource and customer service data. BTES has real time data available in the Customer Service Department for immediate feedback. A dashboard provides real time data for the number of walk-in customers waiting in our lobby, the number of telephone calls waiting in queue and for how long. It also shows how many CSRs are currently with a customer and how many are available to take a customer. Telephone calls that have abandoned for the day (hung up before speaking with a CSR) are tracked and called back daily. This dashboard also shows how many customers have been handled for the day and the monthly net sales number for our fiber services. This provides immediate feedback to our Customer Service Department to know what areas need improving daily.

Data on each CSR including customers handled, call times, sales and disconnects are tracked on a daily, weekly and monthly basis. These data are reviewed on a daily basis by the Supervisor of Customer Service and weekly by senior leaders and the Management Services Work System during the weekly Customer Service meeting and CIT meeting. Improvements can be made rapidly due to our continuous review.

The Engineering Work System collects data on reliability on an on-going basis through daily, weekly, monthly and annual outage minutes. This data is reviewed daily by senior leaders and weekly in the CIT meeting, Engineering Department meeting and Outage meeting.

Data on reliability and safety are collected on an on-going basis in the Operations and Safety Work System and follows the same process as explained above.

Data and information are made available as needed to each employee through our immediate feedback processes, communication process, secured shared folders, postings throughout our office, and the SBP. Suppliers, workforce and collaborators are able to access information as appropriate through one-on-one communication, access to files electronically and shared files. Information is also made available to customers through our newsletter, media sources and our website.

Our key organizational performance measures include outage time (figure 7.1-1); average incident rate per year (figure 7.3-2) and rates (figures 7.1-2 and 7.2-2). These measures are tracked and reviewed on a daily basis. Additional measures are shown in figure 2.2-1 in relation to our action plans.

4.1a (2) BTES is committed to benchmarking as a way to support operational and strategic decision making and innovation. BTES selects, collects and uses three types of comparative data: within BTES; within the industry; and outside the industry. Each department is responsible for selecting, gathering and utilizing pertinent competitive and comparative data and information to analyze key measures and set goals and performance standards. Senior leaders select comparative data based upon linkage to our mission, KSF and SPP, as well as availability, applicability, level of excellence, validity, reliability and cost of information. Data are reviewed annually during our SPP by senior leaders and supervisors to determine the usefulness and value of the information and how it may support our daily operations, as well as progress toward our KSF.

Comparing data within our organization, across varying levels of time, allows BTES to capitalize on and continue positive trends and mitigate or even eliminate negative trends. For example, we track the number of customers calling for their balance of bill, due date and last day to pay before service termination. As part of our IIP, we implemented text and email alerts to automatically notify a customer of their balance and due date. We also began putting the last day to pay on their original bill so that they would have this information before they needed to ask us for it. Additionally, we added an Interactive Voice Response (IVR) system that our customers can access 24/7. Our measures have been justified by the number of these requests continuing to decline.

We compare ourselves to other utilities who we consider to be best in class. Making comparisons within our industry allows us to hone in on factors unique to the electric industry such as outage times and safety aspects. Comparable data are available through our partnerships with TVA, TVPPA, TMEPA and APPA.

We look outside our industry for a higher level of comparisons in an attempt to reveal potential blind spots. Measures relevant on this level are salaries, employee attendance and safety.

Comparative data from individual departments is shared across the organization through review in our CIT meeting

which involves employees from every department. Weekly departmental meetings are also cross-functional and employees from other departments attend those meetings to ensure communication and best practices are shared. Comparative data is also shown in our SBP, as appropriate, which is available to all employees.

Senior leaders are involved in numerous weekly departmental meetings and can quickly make decisions to implement changes/improvements based on data and comparables. If a need is identified, teams can be formed immediately and decisions made without having to wait for additional approval.

BTES also uses a third-party survey company that conducts industry surveys. We use comparative data collected to ensure best-in-class results.

4.1a (3) As detailed in 3.1, BTES uses our IIP (figure 3.1-1) to listen to our customers, directly use the voice of the customer to systematically drive improvement and to build a more customer-focused culture. Our innovative process for measuring and analyzing customer communication data through our OFIs and positives is the most detailed and rigorous method that we can find.

Our IIP has continued to improve over time. The process itself is continually going through a systematic evaluation and improvement process through CAP DO to ensure we are using the most effective means of obtaining, tracking and using the data for corrective and preventative actions.

BTES also uses surveys (detailed in 3.1a1) to collect voice of the customer and market data.

BTES monitors social media channels including Facebook, Twitter, LinkedIn, YouTube, local media outlets and others to listen to our customers. These communications are tracked through our CIT. Information received through these methods are deployed to the appropriate department, actions are taken as necessary, and each communication is reviewed in the weekly CIT meeting to bridge gaps and identify opportunities for our organization to improve.

4.1a (4) Through weekly meetings and daily communication, senior leaders and supervisors review data relative to current business needs. These measures are also reviewed annually during our SPP to determine if the measures are the most relevant and aligned with the focus of our SPP, MVV and KSF. Necessary changes are deployed throughout the organization using our communication process (figure 1.1-3), and employees are able to discuss any necessary modifications to action

plans. Frequent review of our performance measures also creates agility in responding and recognizing changing needs and directions.

Because we continually track and analyze every communication and KSF data, our measurement systems are constantly flexing towards a direction sensitive to the rapid or unexpected changes. The involvement of senior leaders and representation of each department in weekly meetings streamlines responses significantly.

4.1b Performance Analysis and Review

4.1b BTES has created a flat organization with a company culture that enhances free flowing expedient information up, down and across the organization allowing fast and accurate communication throughout. Key decisions are communicated through our communication process as detailed in Category 1.

Senior leaders review organizational performance and capabilities weekly through data compiled and presented in the CIT meeting and departmental meetings, as well as monthly through financial statements and statistical reports. BTES' Board of Directors reviews financial statements and statistical reports on a monthly basis, as well as progress reports of key projects and KSF results.

Throughout the year, issues arise and are addressed in weekly team meetings. These may be customer, weather, regulatory or technically driven. A root cause analysis is performed, solutions are identified and action items are implemented immediately, placed in the next SPP or held until the next SFS. The SBP is designed to flex with the current economic situation as well as any positive or negative changes in the economy. Relative items are addressed in weekly meetings and adjustments are made to accommodate the need for change.

The preparation for the SPP requires key individuals within BTES to break our business into its component parts and evaluate each of those parts. The SBP states our goals, strategic objectives, strategies and action plans. Prior to the completion of the SBP, the CEO reviews the document in the regular monthly Board meeting which is open to the public so that customers can also review these measures. The document is then presented to the Board of Directors for questions, suggestions and recommendations followed by approval at a later meeting. This assures that the goals and objectives of those managing BTES on a day-to-day basis are consistent with those of the Board of Directors and, ultimately, the customer.

Senior leaders also use the results through the CIT, departmental meetings and the IIP (figure 3.1-1) to evaluate organizational performance and the achievement of action plans and strategic objectives.

4.1c Performance Improvement

4.1c (1) BTES uses performance review findings of our KSF to project future performance. Performance measures are compared to others and future projections are made based on improvement plans and previous years' data. Our reliability goal is to have less than 60 minutes of outage time per customer per year which is derived from industry standards and BTES yearly data. Our goal for safety is to have zero lost time accidents. Our financial goal is to leave money in our customers' pockets and to have resources available for improvements and expansion. BTES uses comparable data from other top utilities set by APPA, TVPPA and TMEPA to help set targets and goals for each KSF. These goals and comparables are reviewed yearly during the SPP to ensure alignment.

Actual year-to-date financials is compared to the budget's year-to-date financials to assess performance projections determined in the SPP compared to projections expected for the remainder of the year. Weather is a determining factor in electric sales and can vary projections significantly. Weather also plays a major role in storm repair expenses and outage goals. The SBP is designed to be flexible to unforeseen conditions.

Fiber services are compared at the local level to competitors and with comparables across the region and state. Our main goal with the fiber system is to support our electric system while providing great service to our customers. This is measured by installation surveys and bi-annual customer surveys compared to industry standards.

4.1c (2) BTES has a culture built on continuous improvement. BTES uses review findings during our weekly CIT meeting, cross-functional departmental meetings, the monthly Board meeting and the annual SPP to create action items. Action items and projects are developed from these meetings to translate performance review findings into priorities for continuous and breakthrough improvements and opportunities for innovation. These are discussed during the CIT meeting and senior leaders create cross-functional teams to address these action items, as necessary, during Step 6 of the SPP: Develop Action Items (figure 2.1-3). Teams respond to senior leaders quickly and efficiently on their

findings and make suggestions concerning the action items. Key suppliers are made aware of opportunities through continuous communication and participation in weekly meetings, as appropriate, to ensure alignment.

In addition to the SPP, OFIs for reliability, safety and financials are prioritized during the weekly CIT meeting. Areas of improvement are continuously discussed and reviewed based on the latest data and analysis to ensure that opportunities related to our KSF are addressed and communicated quickly through our Communication Process. Our weekly CIT meeting and SPP are the central point to where innovations are discussed. By using our improvement process of CAP DO, our employees are always looking for ways to improve our services and KSF.

For example, in our weekly Outage Meeting, employees from across all of BTES' work systems meet to discuss every single outage that happened during the prior week. During this meeting, details are discussed of why the outage occurred and what can be done to eliminate that type of outage from occurring again. Outage minutes are reviewed and action items are created, as appropriate, to encourage innovative thought and the continuous improvement culture.

4.2 Information and Knowledge Management

4.2a Data and Information

4.2a (1) BTES has systematic approaches to ensure the accuracy, integrity, reliability, timeliness, security and confidentiality of its data. The accuracy, integrity and reliability of the information is validated through computer system protocols such as the daily billing report and the weekly adjustment review. Critical data are backed up nightly on site as well as off site at a secure location within the BTES service area. This allows us to increase reliability and have access to data at an offsite location, if needed. Most of our data and information are available in real-time. Employees and key suppliers are also provided with individual log-ins and passwords to ensure security. Authorized permissions determined by senior leaders ensure appropriate controls.

The accuracy of our data and information is further ensured through audits and reviews such as the TVA Compliance Audit and the Government Finance Officers Association's annual accounting review. These annual audits result in a list of recommendations for BTES. Senior leaders review these recommendations and make improvements which are deployed through our CIT and one-on-one communication.

BTES also requires employees to follow our Red Flag policy which ensures identity theft prevention and is regulated by the Federal Trade Commission. Employees are trained and tested quarterly on this policy. The Red Flag Team meets on an annual basis to review the policy to ensure we are meeting and exceeding the requirements set forth by the federal government. The policy must be approved annually by our Board of Directors and changes are deployed to our workforce through our Communication Process and updates to the process in SMART.

4.2a (2) Data and information are made available as needed to each employee and can be accessed by work computers or tablets within our Citrix network, through secured Internet access and shared folders, PORCHE, SMART and UPN. Suppliers, workforce and collaborators are able to access this information in a timely, user-friendly way through secured shared folders as appropriate. Information is made available to customers through our newsletter, media sources and our website.

BTES uses numerous methods to ensure the availability of key information and to have redundancy. All of the information stored in our network is backed up nightly onsite and additionally at an offsite backup. All of our customer information, billing and imaging is backed up and verified on a daily basis. Many computer systems run on a battery system for redundancy and in the event of an extended power outage, the same systems have diesel generators which provide additional backup electrical power to key operational systems to ensure ongoing operations. The power supply to BTES is tested twice a year to verify reliability by switching our system to our battery system and generators. If necessary, spare equipment is also used for other systems.

Assessment of security, reliability and user-friendliness of hardware and software begins prior to purchasing. Senior leaders, supervisors and/or appropriate teams evaluate multiple vendors through research, demonstrations and site visits to acquire additional information about reliability and user-friendliness and pilot the hardware and software to ensure it will meet the needs and all requirements including reliable, secure and friendly. The hardware and software must match or exceed industry standards on dependability, security and user-friendliness. This is verified through spec sheets, industry reviews and/or various rating boards. All systems are tested prior to implementation. The user-friendliness of our systems is always in the state of continuous improvement. Before, during and after installation, employees provide feedback

to be communicated back to the vendor or supplier to provide opportunities for continuous improvement.

The Supervisor of Purchasing and Stores has a bi-weekly meeting with key material vendors to discuss opportunities for improvement and positives of products and services they provide and to provide a real-time two-way feedback loop to ensure user-friendliness.

4.2b Organizational Knowledge

4.2b (1) Transfer of workforce knowledge is completed by building the information into our processes and procedures, through cross-training, documentation, and quarterly testing of processes through SMART which is detailed in 5.2c(2). Our newsletter, bill messages, literature in our lobby and media outlets, such as the BTES website and the BTES channel, provide transfer of relevant knowledge from and to the customer. Key suppliers participate in weekly meetings and are made aware of all relevant information through secured shared folders. Those team meetings also allow for rapid sharing and implementation of best practices. Since senior leaders are actively involved in all the daily operations of the organization and participate in weekly meetings, this allows for systematic transfer of relevant knowledge for use during the SPP.

BTES uses our weekly CIT meeting and our Communication Process to quickly identify, share and implement best practices and innovations throughout our organization and to blend and correlate data from different sources. These items are documented in our procedures and processes in SMART.

4.2b (2) Organizational operations that are high performing are easily identifiable through our weekly review of measures through our CIT.

BTES shares best practices across our organization through cross-departmental meetings and teams. Our weekly CIT involves employees from every department. This meeting is used to share opportunities for improvement and positives and to discuss what they are doing to improve. This information is then communicated to each employee through our Communication Process. This process breaks down any barriers throughout our organization. With having a small workforce, employees communicate with each other on a daily basis. BTES also uses our storytelling technique, discussed in Category 1, to share best practices and to build the BTES culture.

Additionally, in 2016, BTES developed a local television station to air on our cable TV service – BTES Power 7.

This provides an additional means for us to share best practices with our community. A bi-weekly 30-minute program called “BTES Corner” gives employees an opportunity to educate our community on BTES’ services, share the best practices and innovative measures we are taking to increase reliability and safety, and tell their stories about what they do and how it relates to BTES products and services.

4.2b (3) Learning is embedded throughout our organization first through our continuous CAP DOs and second through our SMART training program. Continuous learning and improving is reviewed each week in our CIT and shared to the workforce through our communication process and updates to processes in SMART. Part of our culture is that employees understand that if we are to succeed in our mission to exceed expectations, we have to continually look for ways to learn, expand and improve our products and services.

Employees are also encouraged to attend trainings and obtain certifications relevant to their job descriptions as identified during the Performance Appraisal Process. Following training sessions, employees complete a form indicating what information they learned and how they can use this information to improve. Employees then present about what they learned during their weekly departmental meeting so best practices can be identified and proactive action items can potentially be created.

5 Workforce

5.1 Workforce Environment

5.1a Workforce Capability and Capacity

5.1a (1) Each job at BTES has a complete and detailed job description that includes qualifications (skills, competencies and experience) and duties. Each job description is systematically evaluated by employees in that position, directors and supervisors and is updated, as needed as a part of the performance appraisal process. The review of the job description is based on skill and competency and changes are made as appropriate due to changing customer expectations, changes to laws and regulations and changes needed so the workforce skill and competencies are integrated with the SPP. This systematic, fact-based, proactive annual review process ensures that each job description remains relevant to the BTES mission and that skill requirements remain aligned with business and customer needs and requirements. The person hired for a position at BTES has to meet or be trained to meet the capabilities noted in the job description. This assures that BTES has the right mixture of capacities to fully meet the mission and KSF.

Staffing levels at BTES are assessed through our KSF and reviewed in our weekly CIT meeting. BTES also reviews staffing levels as needed based on upcoming SPP and other projects. BTES also hires student workers in the summer and during school breaks. The number of employees per 1,000 customers (figure 7.3-1) is reviewed during the SPP. This number has remained consistently low when compared to our competitive benchmarks while keeping service levels at a higher level as compared to competitive benchmarks.

Skills, competencies, certifications, and staffing levels are reviewed on an annual basis during each employee's performance appraisal and SPP, and weekly during the CIT and departmental meetings where new projects and shift in employee workload is discussed.

During the Performance Appraisal Process, each employee answers the following questions:

- What additional skills and knowledge are needed to more effectively perform your job now and in the future?
- What abilities do you feel you have which are not being fully utilized?

Additionally, each employee and their supervisor must answer the following question regarding that employee:

- What specific objectives are to be undertaken for improvement or career development?

Capability and capacity assessment methods are reviewed on an annual basis during our SPP to ensure the most effective manner in making this assessment is being used. In 2014, for example, this process was improved to digital format instead of paper copies.

5.1a (2) BTES' recruiting and hiring process proactively hires employees that are capable of working for BTES for a lifetime. BTES has developed long-term relationships with teachers at local colleges. For numerous years, BTES has recruited more than 50 percent of its workforce from Northeast State Community College. These teachers are aware of BTES' requirements for linemen, meter readers and engineering assistants, and assist in identifying potential candidates. Open and candid sharing of information has led to a very successful recruitment program. Similar relationships exist with accounting and engineering professors at ETSU, King University, University of Tennessee and Tennessee Technological University. Recruiting largely from our community is a win-win process that provides a dedicated workforce and enables extended families to stay closer together in the

area and reduces turnover due to people wanting to stay in their hometown.

To ensure top quality and a good match with the BTES culture, each employee undergoes an extensive interviewing process before they are considered for hire. The process evaluates their behavior, knowledge, skills, teamwork and education, along with their job and training potential. This process helps to ensure that potential employees align with our culture and mission and that they are chosen for the right position within our organization. In addition, this ensures that diverse ideas and cultures are reflected throughout the workforce.

Our interview and hiring process is reviewed at least annually during our SPP to ensure effectiveness. The Director of Management Services reviews the process prior to and immediately following each interview/hiring she conducts to identify areas that need improvement and relevancy. For example, in 2012, an additional step was added to the interview process for our Customer Service Department to have the potential candidate interview with the entire department as their final interview to give each employee an opportunity to talk with the potential candidate. This was a best practice shared from the Construction Department's interview process of potential Apprentice Linemen. This helps the department be more engaged in the hiring process and have a buy-in in the new employee.

BTES requires that all employees live within our service area. This allows for faster response time during outages, as well as feedback from the community. Because our employees are also our customers, it helps integrate a customer-focus into the workforce since they can ask from a first-hand perspective, "Is it fair to all concerned?" It also enables BTES to gather information from other customers that otherwise might go unnoticed.

New and existing employees at BTES must go through our comprehensive SMART training program to become familiar with their job duties, BTES' functions and work processes, and to become an effective and productive employee as quickly as possible. Enabling employees to do their jobs at a very high level and to engage in productive work respects the time and talent of our workforce and supports our KSF. All employees are retested each quarter to ensure continued understanding and maintaining of a high-quality workforce. Processes are reviewed and updated as needed but at least quarterly.

All recruitment, hiring, placement and retention processes are reviewed on an annual basis during our SPP and Employee Appraisal Process by senior leaders to ensure appropriate workforce needs are being met and that the best methods are being used. All methods are integrated into the BTES culture by its continued focus on our vision of being the best which includes hiring a workforce that will benefit BTES and its mission in the most effective way.

Some examples of improvements that have been made to this process include adding and updating questions asked during the interview process, participating in additional job fairs through partnerships with local colleges and universities, launching our new website with an area dedicated to information about BTES and job openings and adding a formalized orientation including a system tour after being hired, among others.

5.1a (3) BTES' Organizational Chart is reviewed on an annual basis during the SPP, during the annual Succession Planning Committee Meeting and when any workforce change occurs. During Step 2 of the SPP, workforce needs across all departments are reviewed and projected into the future. This keeps our capacity matched to the projected workforce needs. If future needs include additional training or hiring, plans are made as necessary and budgeted accordingly. Cross training is also reviewed to help reduce workforce reductions.

As noted earlier, BTES' recruiting and hiring process proactively hires employees that are capable of working for BTES for a lifetime. BTES does this by recruiting and hiring a highly intelligent, talented, educated and skilled workforce that are capable of learning and performing new and different tasks. That, combined with BTES' dedication to training, minimizes the probability of employees being obsolete. BTES invests in its employees to keep them performing at their very peak across changing needs. Cross-training and cross-functional teams also prepare the workforce for changing capability and capacity needs and for workforce growth. Senior leaders and supervisors also stay attuned to workforce needs in areas such as support and training, in addition to competitive salary and benefits. This helps prevent necessary workforce reductions.

Our highly talented, trained and versatile workforce thrives in a culture of focusing on the KSF which enables us to consistently meet our goal of less than 2.1 employees per 1,000 customers (figure 7.3-1). This minimizes the probability of any workforce reductions and allows us to provide competitive salaries and benefits. The recruiting

and hiring process, in line with the SPP and KSF, manages the right pace for growth. Changing capability and capacity needs are discussed during the SPP and on a real-time basis during our weekly CIT meeting and deployed through our communication process, as necessary, to keep resources deployed where they are most needed and with the capabilities that they need to be excellent and productive employees.

At the weekly departmental meetings, potential workforce change is reviewed at the department level. The supervisor of each department reviews workforce needs and ensures that the path created during the annual SPP is still effective. Change to the workforce plan happens rapidly since senior leadership is included in each department meeting.

For example, during our weekly Customer Service Department meeting, it was determined that additional support would be needed while an employee was on maternity leave. This was planned for months in advance and the supervisor was able to hire and quickly train a temporary employee to help with the workload.

5.1a (4) BTES organizes and manages our workforce to accomplish BTES' work through first recruiting and hiring employees that are capable of doing high quality work and that are a good match for BTES (5.1a2). BTES organizes its workforce to accomplish its strategic plan and related action plans through the weekly CIT meeting. Each job at BTES has a detailed job description that includes qualifications and duties. These are reviewed and improved upon each year during the BTES performance appraisal process which also supports high-performance work and workforce engagement by evaluating employees' productivity, among other factors shown in figure 5.2-2. Open communication at every level is a key to success. Our goal is to provide feedback quickly so that there are no surprises during the performance appraisal. All performance management methods are reviewed during the annual SPP to ensure the most effective means are being utilized to encourage our employees to be productive, innovative and to strive towards our mission of exceeding expectations.

BTES capitalizes on our core competencies by hiring highly educated, skilled individuals and having a workforce that focuses on our KSF which is reviewed during our SPP. By using our KSF to organize and manage our workforce, we continually reinforce a customer and business focus, look for opportunities to improve, create action plans and exceed expectations.

5.1b Workforce Climate

5.1b (1) As previously stated, BTES places high emphasis on safety. We are a role model related to safety within the industry. We had 3,612,568 safe working hours through November 17, 2009 – our first lost time accident in 27 years. Our goal is to not have any lost time accidents and to focus on our vision of being the best.

Security is very important to BTES for the safety of our employees, but also for the safety of our customers. We have locks on all doors and most areas of the building require an access card for entry. There are gates that are locked at specific times each day with limited and controlled access. We also have cameras that scan areas where money is handled and where customers are present. Other cameras review common areas. We have a security system with a customizable and web-based program with key cards and a state of the art fire system. We have gates and locks on all substations and monitor any movement, entry or exit, by a triggered alarm and a camera at substation locations.

Outside crews are required to attend monthly safety meetings and all other employees are required to attend quarterly safety meetings. Each employee is offered First Aid and CPR training and is expected to remain certified. Safety information is also posted on bulletin boards. In addition, employees who do not have a lost-time accident during a calendar year receive a bonus vacation day.

BTES uses radio communication to track movement of all outside employees. In the event of an emergency, BTES can quickly deploy additional employees as well as the proper authorities to safely resolve the situation. BTES also uses safety mechanisms at all substations to notify dispatch of any access to these locations. This allows BTES to preserve the safety of our employees and community as well as the security of our facilities. These processes are documented in SMART and all dispatch and outside crews are trained and tested in these areas.

Related to health, BTES is also certified as a Tennessee Drug-Free Workplace. Employees receive regular publications on healthy life styles, flu shots on an annual basis and are provided with on-site exercise equipment. Employees are also awarded a bonus vacation day for annual perfect attendance. BTES defines perfect attendance as an employee working a full year without taking any sick days.

Additionally, during the annual employee performance appraisal process, safety practices/work habits are

reviewed and a quality performance level is given (unacceptable, below expectations, meets expectations, commendable). This data is confidential and will be available for onsite review.

BTES reviews its health, safety and security processes annually during the SPP, monthly during safety meetings and weekly during the CIT meeting and departmental meetings to ensure all requirements are being met and that the most effective methods are being used. Learnings from our annual review of safety procedures, monthly safety meetings and weekly report of safe working practices go through our CAP DO process which includes determining the root cause of accidents, near misses, unsafe conditions and unsafe actions. Any improvements that are made are updated in SMART and deployed through quarterly testing and our communication process. All processes have a focus on our KSF of safety and meeting its requirements.

5.1b (2) BTES utilizes an employee handbook to support our policies, services and benefits. The handbook communicates important details including our vision, mission, values, General Philosophy, employee benefits, policies and employment requirements.

Figure 5.1 1 BTES Employee Benefits
Group health insurance
Prescription drug benefits
Dental expense reimbursement
Flexible spending account
Group life insurance
Long-term disability
Worker's compensation
Cobra benefits
Family and medical leave
Maternity leave
Vacation
Paid holidays
Sick leave
Uniformed services leave of absence
Funeral leave
Discounted fiber services
Retirement plan
401(k)
Education and training
Service awards

Employees are provided with exceptional health care, state retirement and 401(k) plans in which BTES matches contributions. Employees also earn one sick day for every month they are employed. Unused sick leave accumulates from year to year with no limit on the maximum that can be accumulated. Senior leaders continually listen to the workforce for any changes needed in services and benefits, and continue to tailor them to the needs of our workforce.

BTES provides excellent pay and benefits. These are compared at the local level and within the industry on state and national levels. BTES also utilizes special events to recognize employees for their achievements. The annual Service Awards Banquet is held to recognize employees for their years of service to

BTES. In addition, the Personal Service Award is presented to one employee who was nominated by co-workers and selected by a team of previous winners. The employee is nominated based upon their service and dedication to BTES and the community. Education completion certificates are presented by the CEO during employee meetings to individuals completing apprentice courses, leadership courses, etc. An annual United Way Breakfast is prepared by senior leaders in appreciation for employee support of the Campaign. Employees receive tickets for prize drawings that include an electric grill, an electric smoker and a television. BTES also holds employee/family activities on a regular basis which includes a golf tournament, family picnic, Christmas party for children and Christmas party for adults.

Workforce benefits and policies are reviewed annually during our SPP. Improvements and changes are deployed to the workforce through our communication process and updated handbooks, as appropriate. All benefits and policies are integrated throughout BTES through its mission of exceeding expectations, which includes those of our workforce.

For example, a recent change to workforce benefits included the addition of Teladoc. Once made available to BTES by our insurance provider, BTES senior leadership reviewed the program and deployed it to the workforce through an all-employee meeting. Handouts were given explaining the new feature and a Facebook post was made in our BTES group page so spouses and retirees had the needed information, as well.

5.2 Workforce Engagement

5.2a Workforce Engagement and Performance

5.2a (1) BTES focuses on our KSF and creates teams to foster an organizational culture that is characterized by open communication, high-performance work and an engaged workforce. Our CIT includes key employees from each department. This team meets on a weekly basis to discuss ongoing issues, the IIP and any new ideas, processes or projects and how they relate to our KSF. Pertinent issues are shared through our Communication Process (figure 1.1-3), and ideas generated are shared with other departments. This ensures that each department is aware of any issues and provides them with the opportunity to provide suggestions and share diverse ideas. This type of team environment promotes skill sharing and communication among people from different disciplines with diverse skills. Other cross-functional teams are created as needed to develop new processes or work on projects.

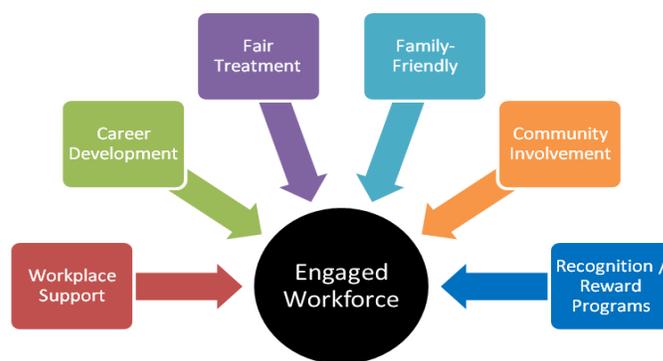
BTES has created a flat organization with a company culture that enhances free flowing expedient information across the organization allowing fast, accurate communication throughout. Senior leaders always have an open door policy and encourage open and honest communication with employees.

BTES strives to make the best use of technology and in doing so encourages employees to attend seminars, conferences, technical courses and classes that will increase their knowledge and improve their skills. Through open communication and the flatness of our organization, employees are encouraged to share their ideas and innovations. Decision-making is also encouraged and expected at every level. BTES' performance appraisal process encourages employees to set short-term (within a year) goals and long-term goals, along with personal desires. Employees share how BTES may help them achieve these goals and what actions they are currently taking to achieve them.

BTES' workforce is highly educated, talented and skilled. As a result of our highly educated workforce, employees are capable of performing different tasks which allows us to achieve agility and to keep current with business needs.

5.2a(2) Drivers of workforce engagement and satisfaction are shown in figure 5.2-1.

Figure 5.2-1 – Key Elements for Engagement



These are determined and deployed using the employee performance appraisal process, during the annual SPP and through our KSF. During the process, employees are provided with the opportunity to evaluate their work performance, show their commitment to BTES and to voice what their supervisors could do to help them work more effectively and efficiently. During the annual SPP, senior leaders take into consideration information received during each employee's performance appraisal to determine key elements for engagement and drivers of workforce satisfaction.

Weekly departmental meetings with senior leaders, supervisors, suppliers and employees help in determining engagement and satisfaction. Discussions are held regularly with employees, departments and individuals to ensure that BTES is meeting these needs.

Figure 5.2 2 Quality Performance Areas	
Knowledge of Job	
Planning/Organization	
Quality of Work	
Quantity of Acceptable Work	
Cost Consciousness	
Communications	
Safety Practices/Work Habits	
Job Related Decision Making	
Accepts Change/Adaptability	
Accepts Direction	
Accepts Responsibility	
Initiative	
Dependability	
Attendance / Availability / Punctuality	
Employee/Customer Relations	
Leadership	
SL - Supervisor Objectivity	
SL - Management of Resources/Team Workers	

5.2a (3) BTES assesses workforce engagement through our Performance Appraisal Process. It provides senior leaders with the opportunity to assess workforce satisfaction and engagement. Employees are given an employee personal assessment form which asks numerous questions that provides the opportunity to evaluate his or her work performance and what their supervisor could do to help them work more efficiently. BTES also examines employee attendance and participation in opportunities such as TNCPE and BTES events as a way to assess workforce engagement and satisfaction.

BTES places a high importance on employee safety, as described in our safety record in 5.1b(1). We believe this record is an assessment of workforce engagement and satisfaction. Employees who do not have a

lost-time accident during a calendar year receive a bonus vacation day for the following year and also receive a cash reward for each half year with no one having an accident which is funded by our insurance company and BTES.

As previously mentioned in 5.1b, BTES provides an environment that encourages employee well-being. Employees have access to on-site exercise equipment, receive regular publications on healthy life styles and well-being and are offered flu shots annually. Formal monthly safety meetings are held with the emphasis on maintaining a safe working environment and having knowledgeable, skilled workers. All employees receive First Aid and CPR training and are expected to remain certified. Linemen also practice pole and bucket truck rescue techniques annually.

Employee perfect attendance and our safety record demonstrate engagement and are benchmarks in our industry. Both of these are indicators of satisfaction, engagement and well-being, and link directly to our KSF. These results are deployed through publications and postings on bulletin boards. Perfect attendance is a highly sought after achievement by our employees. Employees are awarded an additional vacation day for achieving perfect attendance.

Each performance appraisal is reviewed by the CEO and Director of Management Services. This information is used to evaluate strengths and weaknesses and to determine employee training needs and production. Results are used to identify how well individuals are meeting overall company objectives. Future employee needs are identified in an effort to ensure resources are available to meet strategic objectives and are placed in the Succession Plan and the SPP.

Our workforce engagement results are reviewed on an annual basis through our SPP to ensure we are using the most effective means and that they are aligned in our organization through our vision of being the best which includes being the best employer in our community.

BTES also measures workforce engagement through employee retention (figure 7.3-5). All workforce engagement factors and methods for assessing workforce engagement are reviewed on an annual basis during our SPP. We ensure that the most effective means are being utilized and that they align with our organization and KSF.

5.2a (4) As previously described, all employees including temporary and student workers, undergo extensive interviewing and testing before hired to ensure that their capabilities are best utilized in the right position within our organization and to promote high-performance work.

BTES' Performance Appraisal Process, administered by senior leaders, supports our efforts for high performance and workforce engagement. Performance appraisal reports are intended to provide a written record of employee performance. Employees are entitled to know where they stand, what is expected of them and how well they are doing. They should know what their major strengths are and what they can do to improve. The factors shown in figure 5.2-2 are reviewed during each Performance Appraisal, as well as major accomplishments and recognitions, short- and long-term goals, and areas of improvement. This process facilitates the promotion of high performance work and the employee's engagement with BTES. It also reinforces

innovative thinking, customer satisfaction and achieves BTES' action plans.

All performance management methods are reviewed during the annual SPP to ensure the most effective means are being utilized to encourage our employees to be productive, innovative and to strive towards our mission of exceeding expectations.

5.2b WORKFORCE AND LEADER DEVELOPMENT

5.2b (1) The development and learning system for leaders as it relates to core competencies, strategic challenges, accomplishment of action plans, organizational performance improvement, technological changes, innovation and the breadth of leadership development opportunities is the same as is in place for all employees and is described above. One-on-one coaching by senior leaders is provided to all new and existing employees as needed. All employees attend an annual Drug-Free Training Seminar and supervisors participate in additional training and legal meetings.

In addition, employees are encouraged to document processes through SMART and help with cross-training to transfer knowledge from departing or retiring workers to current and new employees.

Our core competencies drive our learning and development efforts. By providing effective training and transfer of knowledge, our workforce can better provide our services. When determining action plans, necessary workforce development and learning systems are addressed in concurrence.

BTES' focus on customers and ethics is reviewed in the employee handbook, discussed in the weekly CIT meeting and reviewed during the SPP.

The 4-1/2 year on-the-job correspondence and classroom apprentice program is a program that provides extensive training for new employees in the Construction, Meter and Substations and Meter Reading Departments. During the program, employees document how many hours they spend doing different on-the-job tasks. This is evaluated by their supervisors and senior leaders to ensure that they have ample time to develop all the needed skills. In addition, apprentices attend five week-long labs where they practice in-the-field skills. Apprenticeships also receive training and mentoring from Foremen and Linemen from the crews they are working on. This program addresses a breadth of development opportunities including education, training, mentoring and work-related experiences.

All departments train their employees through documented processes in SMART. The employee must also pass a test to show their competency in that area. All employees are retested quarterly. Supervisors and senior leaders are also available if mentoring or coaching is needed. SMART is reviewed on an on-going basis to ensure effectiveness of training.

Senior leaders encourage employees to participate in quality and leadership training through programs such as TNCPE and LEAD Bristol. These programs provide the opportunity to increase organizational performance improvement and encourage innovation.

5.2b (2) Through SMART, senior leaders and supervisors evaluate the effectiveness of BTES' learning and development system. They use this system to track over 180 processes, as well as the employees that have taken the test on these processes. Senior leaders and supervisors can easily evaluate learning by how long it takes for the employee to complete the tests and how often the employee passes such tests. Senior leaders and supervisors regularly revisit these processes based off feedback offered by the employee, as well as how effective the employee is at the process after the test. Process content and accuracy is reviewed every quarter and updates are made as needed. As new processes or changes to current processes arise, documented processes within SMART are updated. SMART allows for organizational alignment through a systematic approach and measuring of all key deployment areas.

In addition to the quarterly review of processes, our SMART training program is reviewed on a weekly basis during our CIT meeting. As employees go through the CAP DO process, ideas for improvements are presented to supervisors. These ideas are then discussed during our weekly CIT meeting and decisions are made to implement improvements. Some examples of improvements that have been made to the SMART program include the addition of using pictures, changing to a consistent 20 question test, addition of a tutorial library to reference anytime, automating supervisor procedures and better organization of tutorials by department and overall.

Effectiveness of workforce and leader development and learning systems is also measured through feedback given through our communication process provided by the workforce and leaders. Other techniques for determining the effectiveness of training include the performance appraisals, evaluation of performance data and results of tests conducted during training.

5.2b (3) Senior leaders and supervisors work with each employee during the performance appraisal process to review organizational and personal goals in relation to the employee's position and future goals. The goal of succession planning is to ensure that employees have education, training and experience to fill open positions.

As mentioned in 1.1a3, BTES has a utility-wide succession plan that was created in July 1992. This succession plan is reviewed on an annual basis and was last updated in April 2016. This plan looks at workforce age, retirement eligibility, position, education and experience. Career progression methods, including the Performance Appraisal Process and the Succession Plan, are reviewed on an on-going basis to facilitate changes in the organization and provide immediate actions to further our workforce's knowledge and training. To meet our mission of exceeding expectations, we must be prepared with a knowledgeable and skilled workforce.

6 Operations

6.1 Work Process

6.1a Product and Process Design

6.1a (1) Key process requirements are determined during the design of key work processes in Step 1 (figure 6.1-2). Customer requirements, best practices and input from suppliers during weekly meetings are factored into determining the work process requirements. The ability to measure and review key requirements is designed into the process. All processes must tie directly to our KSF and mission and positively answer one of more of the following questions:

- Will it increase our reliability?
- Will it increase safety?
- Will it make us more cost-effective?
- Will it help to exceed our customers' expectations?

6.1a (2) BTES' Key Work Systems, Key Work Processes, and Key Requirements are listed in figure 2.1-4. Overall key product requirements are determined during Step 2 of the design process to ensure they are in alignment with our KSF of providing reliable, safe, cost effective services to our customers while working towards exceeding expectations. Specific requirements for each process are determined by assessing customer needs for products and services through our listening methods (3.1a1), our SPP, industry research, laws and regulations. Also during the design process, the key process requirements are developed based on review of key customer requirements, strategic planning, internal/external feedback obtained and measurements.

6.1a (3) The process used for designing key work processes is illustrated in figure 6.1-2. It is deployed to our workforce through our weekly CIT meeting and our communication process. It is evaluated during our annual SPP to confirm that it is the most effective method in designing and improving our processes, and that it continues to help us accomplish our mission.

The system for designing processes ensures that the process is capable of meeting the design requirements through tests and measurements, with approval by senior leaders before the process is fully implemented. Key process measures defined during the design are monitored and evaluated by supervisors and senior leaders for process performance during day-to-day operations. Based on process evaluations and user and customer feedback, the need for further revisions and improvements is identified and implemented. Customer requirements and supplier inputs are considered throughout the design and implementation process.

New technology is incorporated into processes in Step 5 through our highly educated and skilled staff who frequently attend conferences, conventions and seminars to learn about the latest technology applicable to our business. Our open relationship with our suppliers provides information on technological developments.

Incorporating organizational knowledge is personal, quick and efficient in a flat organization such as ours. This is done throughout the process in Steps 6, 9, 10, 11 and 12. Weekly meetings among different departments and suppliers allow for quick transfer of knowledge. Information is discussed in our weekly CIT meeting and then deployed by our communication process (detailed in Category 1) to continue striving towards product excellence (Step 8).

The need for agility is a requirement in our industry and is incorporated into the process design for Steps 1, 5, 6, 8 and 9. Agility is also a function of our flat organization.

6.1b Process Management

6.1b (1) All of BTES' day-to-day work processes meet their key process requirements by following the BTES Business Model when they are first created and during each process' quarterly review. During steps 8-10 and step 14 of development, processes are reviewed to ensure key requirements are being met.

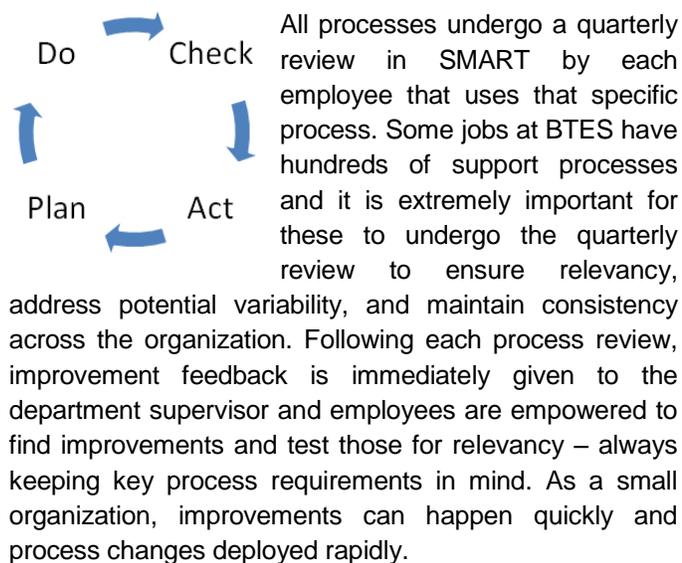
Key performance measures and indicators that we use to improve our work processes are shown in figure 2.1-4. These relate to the end-product quality and performance

through the focus on our KSF. The process control mechanisms and in-process control measures are designed into Steps 8-10 and Step 14 of figure 6.1-2. Employees are trained as part of the process design in Step 12 to monitor performance through the applicable measures. Immediate supervisors monitor the same measures daily or more frequently, as designed. During weekly meetings, senior leaders evaluate performance measures and key requirements. Additionally, monthly and annual reviews of measures and requirements are evaluated to determine consistent performance.

6.1b (2) Figure 6.1-2 is used to design all processes – support processes as well as key work processes. Key support processes are determined during Steps 7-10 in the Process Design and Improvement Process. They are documented during Step 11 and deployed during Step 12. These are the day-to-day processes that are implemented within SMART that support our key work processes and are reviewed on a quarterly basis for continuous improvement. Employees are trained to monitor process performance enabling BTES to react more quickly to process changes. Business support requirements are evaluated during Step 2 to guarantee needs are being met. A complete list of processes is available on site.

6.1b (3) Improvements are a continuous initiative and follow the CAP DO process shown in figure 6.1-1.

Figure 6.1-1 CAP DO



Work processes are also improved by reviewing key measures during weekly meetings and the CIT meeting, Step 14. As work processes are improved and changed (Step 14) using our CAP DO improvement process, they

are updated in SMART and deployed through our communication process, detailed in Category 1.

Feedback from customers (service calls, helpdesk tickets and service truck rolls), suppliers and partners all play a part in determining key processes and their requirements. Review of this data occurs weekly the CIT meeting and at department meetings. When an opportunity is identified, a cross functional team begins research to determine what changes can be made using the CAP DO process. This team designs an improved process, key requirements and key measures required to track performance. The design is reviewed by senior leadership and tested. The design is modified as needed, approved and then implemented. The CAP DO process is continuously applied to the process. Process improvements are prioritized as needed by senior leaders based on cost-benefit and resource availability.

Through our improvement initiative, we are able to continually examine the reasons behind customer communications and how we can improve our processes to better deliver our products and services. Our culture of continuous improvement and open communication also provides us with the opportunity to keep processes current with business needs and directions.

As detailed in 5.2b(1), each employee undergoes a self-assessment and provides feedback relating to individual needs and departmental needs. This information can result in new processes or modification of existing processes. Through our various communications outlets we are able to share lessons learned quickly and efficiently throughout the entire organization.

6.1c Supply-Chain Management

Our vendors and suppliers are our partners and provide goods and services that enable us to meet the needs of our customers. We treat our vendors and suppliers with respect and create an environment which will ensure mutual success. Key suppliers and partners are provided with open communication and some participate in weekly meetings to share and discuss opportunities for improvement and new ideas and processes. BTES works closely with our key suppliers and partners to be able to provide the most reliable, safe and cost effective service and to establish long term relationships.

When selecting suppliers and partners, BTES does intensive research to ensure the best fit for our organization. BTES talks with current and previous customers and reviews any applicable data and statistics.

Key suppliers and partners must mirror our mission, have a culture that is in line with our values and provides services that exceeds expectations. We expect and require our key suppliers and partners to provide us with reliable, safe and cost effective services, just as our customers and stakeholders expect and require of us. We work closely with our suppliers to develop innovative approaches and products in response to our customer or market need. An example is our water heater load management switches that utilizes our existing fiber optic system and has the ability to monitor the water temperature inside the water heater tank. Having the knowledge of the temperature inside the tank allows us to shift more energy usage to lower-usage, lower-cost times. BTES worked closely with our vendor, Carina Technology, in developing, engineering and deploying this new technology. BTES meets with Carina on a weekly basis to review metrics related to our KSF, performance and satisfaction levels based on surveys.

Supplier and partner performance is reviewed weekly during departmental meetings to ensure that products and services are meeting our KSF. If problems exist, steps are taken to resolve the issue quickly and effectively. Open communication and continuous improvement from our suppliers is encouraged. The Supervisor of Purchasing and Stores conducts one-on-one in person meetings on a bi-weekly basis with key material vendors to discuss metrics related to our KSF, performance and satisfaction. Poorly performing suppliers are dealt with according to the situation and issues are expected to be resolved. If issues persist, BTES will research other suppliers.

6.1d Innovation Management

BTES creates an environment for innovation and intelligent risk taking through our CIT and focus on our KSF. Employees are encouraged to continuously look for ways to improve, no matter the size of the project. Through our CIT, employees discuss improvements, ideas for innovation, comparisons of other organizations and sustainability. Action plans are created, as necessary, and deployed through our communication process. Projects are reviewed weekly during our CIT, or more often through the development of project teams. During any of these reviews, a project may be discontinued to support higher-priority opportunities. All projects and innovations must meet or exceed our KSF standards and be integrated through our MVV.

Through conference attendance; partnerships with local, regional, state and national organizations; and research, BTES has many innovative initiatives already in place.

These include our fiber-to-the-home network which provides Internet speeds up to ten gigabits per second (the fastest available in the United States), Load Management Programs, Meter Data Management Program, green initiatives through electric vehicles and charging stations, an Economic Development Loan Program and Automated Switching System which is unlike any other in the country.

Senior leaders promote these programs through community presentations, being active on community, state and national committees and boards and partnering with local organizations including ETSU. These programs not only support our KSF but help us to be sustainable in the future by promoting community development. We continually review our metrics to be financially stable and provide reliable, safe services. Employees are encouraged to continually look for innovations.

Our innovation process is managed through our CIT. In this weekly meeting, innovations are discussed and strategic opportunities to pursue as intelligent risks are determined. The CIT also determines financial and resource availability (as the Director of Accounting and Finance and the Director of Management Services are members of this team) and decisions are made as to when to discontinue pursuing an opportunity.

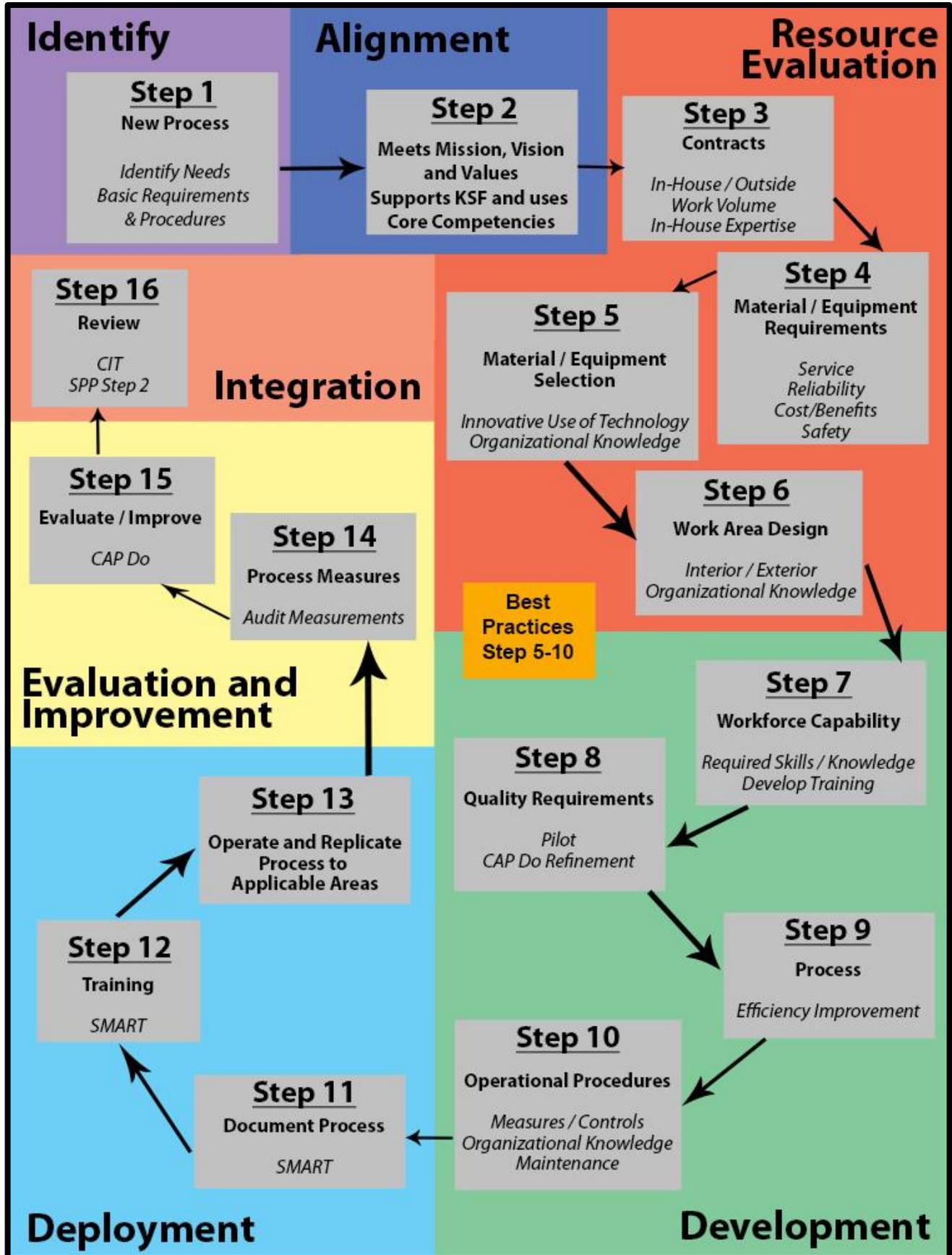
6.2 Operational Effectiveness

6.2a Process Efficiency and Effectiveness

The costs associated with inspections, tests and process audits are minimized by involving employees in the development of processes, clearly defining process requirements (Steps 1, 8), use of best practices, technology enablers, clear alignment to KSF, use of process documentation and training to standardized best practices, monitoring measures (Step 14) and systematic improvement (Step 15).

Since decision making is expected at every level, employees are empowered to initiate improvements and collaborate with other employees to find resolutions. Employees have participated in process improvement workshops and are able to guide improvement activities. Early detection of defects is essential to provide reliable, safe and cost effective services. BTES researches best practices and the experience of other utilities and businesses that employ the systems being evaluated in Steps 5-10. BTES helps to prevent problems by visiting other utilities to observe how they use the system, what issues they have incurred since the systems' inception and how these issues were remedied.

Figure 6.1-2 Design and Improvement Process



A short chain of command reduces the cycle time for problem identification and resolution in Steps 1, 5, 8 and 9. Efficiency (Step 9) and cost control (Steps 2-15) are central to the culture, mission and vision of BTES as shown throughout the process. All systems are designed to minimize costs and maximize productivity (Steps 4, 5, 6, 7, 10 and 12). Teams are empowered to perform cost-analysis using cross-functional team members who are knowledgeable. The best option(s) are submitted for approval. Teams must present research before costs can be approved.

BTES works to prevent outages (defect or service error) through a number of preventative actions including performing line patrols, substation checks and infrared surveys. We maintain a database on outages and causes to determine trends and take appropriate preventative action to minimize outages. At the weekly outage meeting, each outage that occurred the prior week is discussed and how to prevent those in the future. This information is reviewed in the CIT meeting.

Balancing the need for cost control with the needs of our customers is evaluated during Step 2 of the design process. This step evaluates alignment with our MVV and supports our KSF which includes providing service that is cost effective.

Financial measures are reviewed on a monthly basis by the Accounting and Finance Work System and presented to the Board of Directors for their review and approval. During this monthly review, operational costs are reviewed and compared against financial projections within our SBP. Future spending, customer requirements, partner and supplier costs, and projects are reviewed to ensure our KSF are being met.

6.2b MANAGEMENT OF INFORMATION SYSTEMS

6.2b (1) One KSF is to offer reliable service to everyone. In the area of information technology, BTES utilizes redundant servers with automated off-site backups of critical data. Spare hardware is kept on hand for key network and fiber equipment. Configurations are backed up and stored both on site and at the off-site backup facility. The network used by the SCADA system is built on five fiber optic rings with multiple interconnection points. This provides multiple routes for substation data and control traffic in the event of a fiber cut. Furthermore, information pertaining to the operation of network systems and infrastructure is maintained and updated on a regular basis. This information includes contacts for key suppliers

of hardware for the operation of the network, Internet, telephone and cable television systems.

Electricity to the BTES building comes from two different electric distribution circuits, fed from two different substations which are, in turn, fed from two different TVA delivery points. Backup generators are also present in the event that the primary electric sources fail.

6.2b (2) As stated in 4.2a2, BTES ensures cyber security of data and information through numerous methods.

Our internal network and Internet connection have several security layers. First, a router with access control lists forms the first layer. We create rules for those external systems that are authorized to connect to our system. The second layer is a stateful packet inspection firewall. This firewall has similar rules as the router, and also provides a layer of denial of service attack mitigation. The third layer is a firewall that provides address translation from our internal network to a demilitarized zone (the area between the firewalls) for further IP network separation.

We periodically run checks from outside the network to verify the integrity of firewall rules and network address translations. We perform periodic security audits of the router and firewall configurations, including access control rules and network translations. Unused rules and translations are removed during these checks. Security audits are documented, saved and backed up to a remote location on our network. Firewalls are updated nightly with the latest antivirus signatures, compromised/ threat servers, access rules and website ratings, among other things. These firewalls keep the BTES network secure by staying up-to-date with the latest threats.

We also require passwords with a minimum number of characters with some complexity required. Passwords are unique and accounts for every unique user account with some multi-factor authentication for administration accounts. We require first time passwords to be changed and an account will be locked out after numerous failed attempts. We monitor system use through log ons, log offs, account management, system events, denial of service attacks, DNS intrusions, packet rate limits, invalid dhcp offers, invalid dial on demand credentials, IP spoofing, oversized UPD packets, POP intrusions, SYN attacks, TCP flood attempts and port scanning attempts. We follow most of the NIST 800-53 standards and most of our software and configurations also comply with standards like HIPPA and Sarbanes-Oxley. We also utilize the principle of least privilege.

All employees are given an Employee Handbook upon starting their career at BTES. This handbook includes BTES' Computer Usage and Electronic Communication policy which states procedures that apply to employees accessing all computers and networks including email, voicemail and Internet usage, as well as contamination prevention and non-compliance standards.

BTES' Fiber Department also attends training and conferences regarding network security. Learnings from these trainings are presented to our CIT that meets on a weekly basis and any changes or improvements to our current cyber and network security policies are discussed and deployed, as appropriate.

BTES also requires all employees to be trained and tested quarterly on Customer Proprietary Network Information (CPNI) and our Red Flag Policy to protect secured data. The Red Flag Team and CPNI Team meet on an annual basis to review the policies to ensure we are meeting and exceeding the requirements set forth by the federal government. The policies must be approved annually by our Board of Directors and changes are deployed to our workforce through updates to the process in SMART.

Any potential breach or actual breach is discussed weekly in the CIT to share best practices used and to educate others on the importance of cyber security. All potential breaches are documented and, if necessary, reported to the appropriate federal authorities.

6.2c SAFETY AND EMERGENCY PREPAREDNESS

6.2c (1) BTES' safe operating environment is detailed in 5.1b(1). Our safety standards and requirements are benchmarks in the electric industry.

In preparation for any kind of security breach with our substations, we have enabled an alarm to every substation that reacts if anyone enters the control house. This alarm is connected to our SCADA system which is monitored twenty-four hours a day. Our substations are continuously locked. To keep our SCADA and fiber equipment in the substations constantly operating, our fiber backbone has been formed in a ring so that if one part of the ring is cut, the other can pick it up. We have five loops encompassing our network and have battery backups in the substations for all the communications equipment. The SCADA traffic is on a private VLAN.

Each employee has a unique government issued RF identification card with their photo. We have cameras located throughout our building for security and we record and monitor phone calls into our office. Our internal office has someone present twenty-four hours a day, seven days a week and customer entrances are automatically locked after business hours. Our in-office computers are all equipped with virus scanning software and security audits are completed regularly.

Figure 6.2-1 – Safety Environment

Accident Prevention	Monthly Safety Meetings Published Safety News Adoption of APPA Safety Manual Daily Tailgate Safety Meetings for Outside Crews Annual Safety Drills Quarterly Safety Training in SMART
Inspection	Monthly Supervisor Evaluation and Report Annual OSHA & TOSHA Audits Weekly Review in CIT
Root-Cause Analysis	Weekly Review in Departmental Meetings CAP DO Senior Leader Review Report of Accidents Form
Recovery	Process Review and Improvements

6.2c (2) BTES' emergency readiness plans seek to prevent emergencies and respond to them if they happen. Related to the work systems, the ability to act quickly and efficiently during an outage is crucial not only to our customers, but also to our employees and community. During a weather-related disaster or emergency, our services become even more important. An Emergency Response Plan has been documented, deployed through SMART and is available to all senior leaders, supervisors and dispatch employees. Our Emergency Planning Team reviews the plan on an annual basis and makes improvements, as appropriate. The plan is based on a template provided by the TVPPA and is utilized by other member utilities in the Valley. This template allows BTES to systematically make changes to the plan and for better alignment of emergency procedures when working with other utilities. The plan illustrates how to best utilize the basic function of the organization regardless of the number of personnel available. All duties needed during an emergency are explained and the best person to fill those responsibilities is listed, as well. All emergency contacts are listed and easily accessible. Within the Plan is also the Emergency/Disaster Preparedness Plans for the City of Bristol TN and Sullivan County. Local government and emergency services also know who to contact if they experience an emergency and need our service. BTES fills the need of availability and service by providing a 24-hour dispatch and 24-hour Help Desk personnel. We continually update contracts, certificates of insurance and emergency contact lists with contract

crews to guarantee we have extra resources available in the event of an emergency.

BTES has a Mutual Aid Agreement in place with the APPA to assure that we can receive mutual aid from other utilities in the event of an emergency or disaster. In addition, BTES has an Emergency Load Curtailment Plan (ELCP) that is easily accessible to all senior leaders, supervisors and dispatch employees. This plan is put into place by TVA and utilized during peak usage times. The ELCP includes processes for reducing external and internal loads, such as turning thermostats up or down and turning off unnecessary lights. Contacts for our commercial and industrial customers are also included so that they may reduce their load during these times. We also participate in semi-annual emergency drills with TVA.

Our Water Heater Program is another preventative measure. Each water heater installed has a load management switch that allows us to cycle our water heaters off and on during peak usage times. Studies have shown that water heaters are the second largest user of electricity in a customer's home. By being able to cycle those off, we can drastically reduce our load. Our customer's convenience and comfort is not affected during cycling because we only install 50-gallon water heaters or larger. This ensures that customers seldom run out of hot water.

Through our Tree Trimming Program, BTES works to lessen the effects of weather related emergencies. We continue to monitor frequency of tree-caused outages by areas and make more frequent visits to these areas. Our Trade-a-Tree program has also helped in preventing threats to electric lines and outages. We perform line patrols, substation checks and infrared surveys as preventative measures. In addition, our state-of-the-art management systems help to recognize and manage outages and prioritize the recovery.

Numerous employee requirements are based upon preventing emergencies. All employees are trained in First Aid and CPR. Our Director of Operations and Safety is also certified to teach First Aid and CPR. In addition, outside crews attend formal monthly safety meetings and all other employees attend quarterly safety meetings. We also maintain a database on outages and their causes to determine trends and take appropriate preventative action to minimize outages.

Related to the workplace emergency readiness, BTES also has an internal emergency plan in place to ensure the safety of our employees during natural disasters,

emergencies and fire, and situations involving unruly customers. This plan is deployed upon hire and during annual all employee safety meetings. It is evaluated annually by our Director of Operations and Safety and other senior leaders to confirm that it is the most effective means in keeping our employees safe during an emergency and that it continues to meet KSF requirements. Reviews are made annually during our emergency drills and improvements are made and deployed by our Emergency Planning Team.

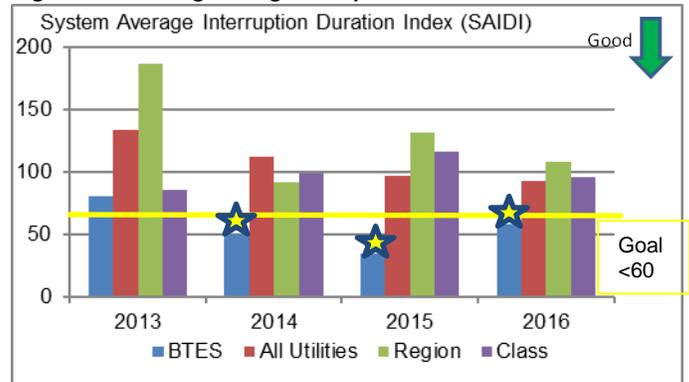
7 Results

7.1 Product and Process Outcomes

7.1a Customer Focused Product and Service Results

In the electric industry, not all data on outages are collected and measured in the same form. Many utilities choose a reporting scheme that omits extreme power outages caused by nature. We choose the reporting scheme that has the most inclusive data. We use the number of customer minutes "on" versus the number of minutes "off" to determine our reliability rate. Our current goal is sixty minutes or less "off time" per customer per year. Figure 7.1-1 shows the average outage time per customer in comparison with utilities that have participated in the national APPA eReliability Tracker program. For the past three years, BTES has exceeded our goal. In 2016, we saved 46.6 estimated minutes of outage time through our Automated Switching System.

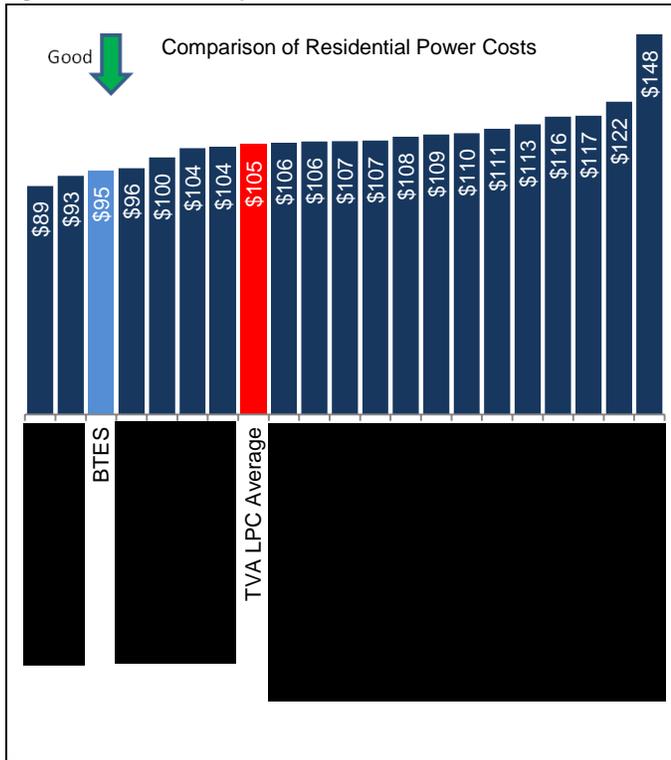
Figure 7.1-1 Average Outage Time per Customer



We are continuously examining all of our costs to ensure that we are working efficiently and effectively. In order to

evaluate our ability to provide cost-effective rates, BTES conducts annual cost comparisons with other utilities.

Figure 7.1-2 – 2016 Comparison of Residential Power Costs



In addition, we also apply retail electric rates to our customer billing data. Utility names have been left out to protect confidentiality. This comparison, shown in figure 7.1-3, illustrates that due to our efficiencies we kept approximately \$70 million in our customers' pockets between 1976 and 2016, compared to our best comparable other. We have a common wholesale rate with the comparable utilities.

Market Share for Internet, telephone, and cable television and take rates for electric water heater and electric heating are shown in 7.5. Internet and cable performance is measured through survey feedback with comparisons provided by J.D. Powers. Telephone performance is measured through customer surveys.

Figure 7.1-3 – Revenue Less Power Cost

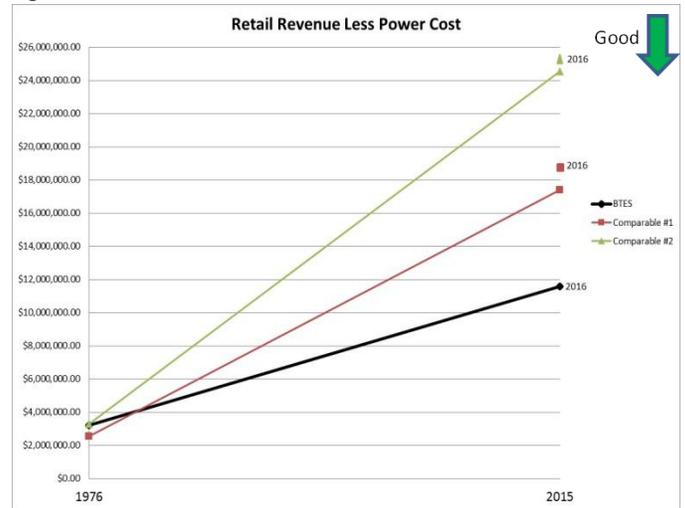


Figure 7.1-4 Internet Performance

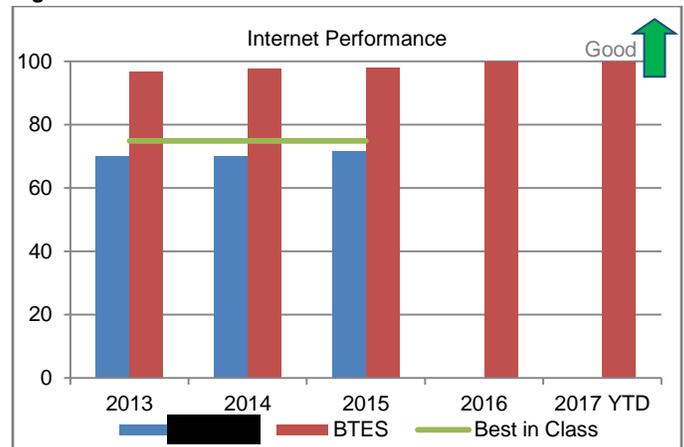


Figure 7.1-5 Cable Television Performance

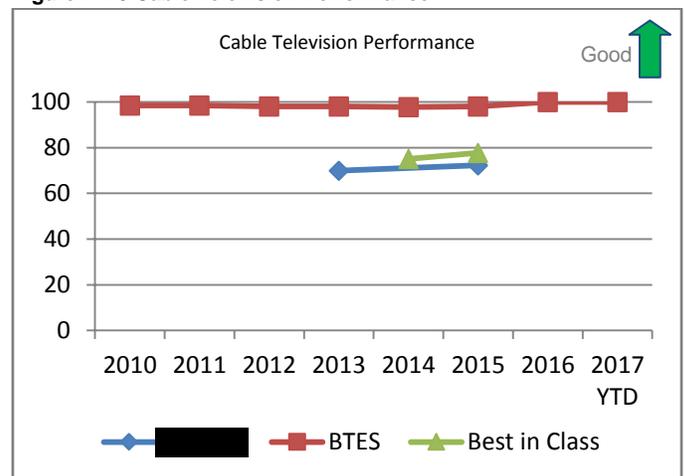
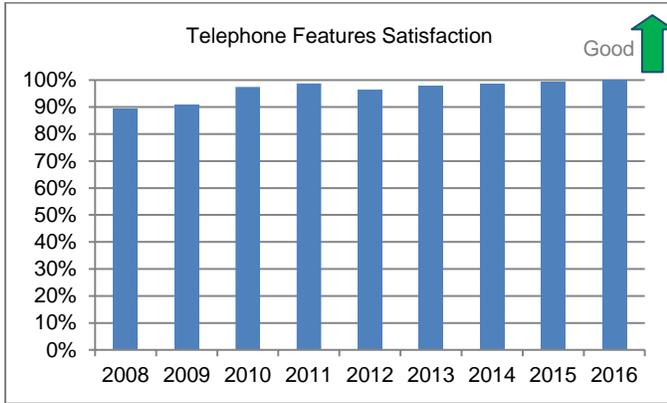


Figure 7.1-6 Satisfaction with Telephone Features Available



7.1b Work Process Effectiveness Results

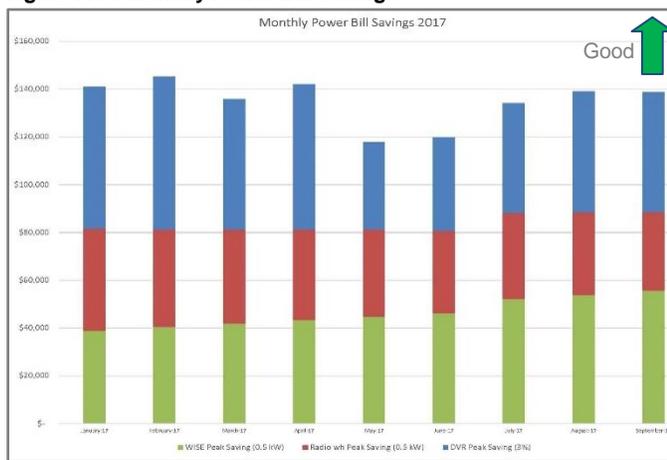
7.1b (1) Participating in local, regional and national award programs helps to ensure process effectiveness and efficiency through stringent standards.

Figure 7.1-7 Award Program Participation

Award	2014	2015	2016	2017
APPA Reliable Public Power Provider	Platinum Level	Diamond Level	Diamond Level	Diamond Level
Arbor Day Foundation Tree Line USA Award	X	X	X	X
GFOA Certificate for Achievement for Excellence in Financial Reporting	X	X	X	X
Best of Bristol Award (Cable and Internet Provider)	n/a	X	n/a	X
APPA Safety Award of Excellence	X	X	X	X
APPA Reliability Award	n/a	n/a	X	X

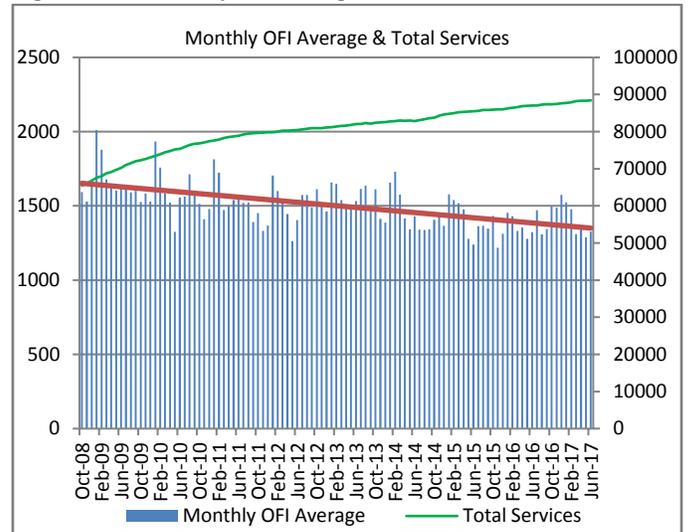
BTES measures the effectiveness and efficiency of our Load Management Programs through our monthly power bill savings. Had BTES not implemented and continued to improve on these programs, our customers' rates would not be as low as they are currently.

Figure 7.1-8 Monthly Power Bill Savings



Each customer communication across every department is classified as either a positive or OFI. This is an extreme measure that will identify even the smallest indication of something that can be better. As our number of services continues to grow (green line), we continue to reduce our OFIs (blue bars).

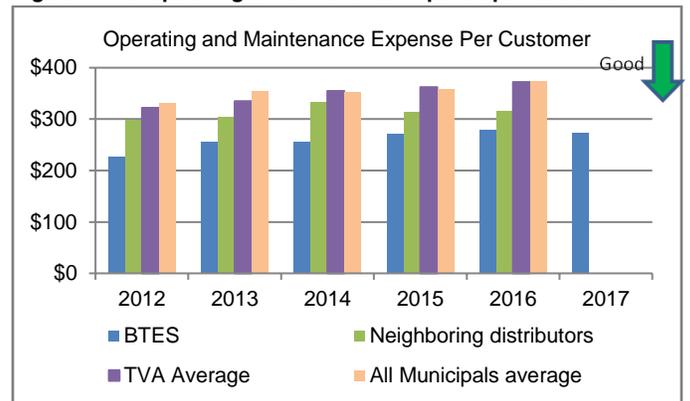
Figure 7.1-9 – Monthly OFI Average and Total Services



Detailed departmental OFI categories, improvements made and related processes are available on site.

BTES' Operating and Maintenance Expense has consistently remained below neighboring distributors and other comparables. BTES' focus on increased productivity and efficiency contributes to keeping this number as low as possible while providing quality products to our customers.

Figure 7.1-10 Operating & Maintenance Expense per Customer



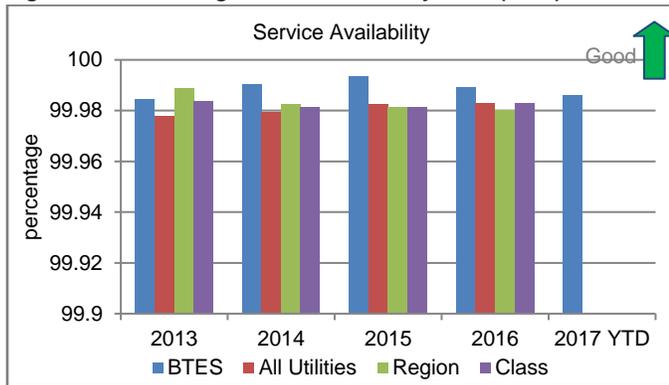
7.1b (2) BTES conducts monthly departmental safety checks and monthly safety meetings. Key safety and emergency preparedness measures include conducting our annual emergency drills, active shooter training, blood borne pathogen training and emergency preparedness training. All employees attend these training sessions.

Figure 7.1-11 Safety Training

Safety / Preparedness Training	2014	2015	2016	2017
Emergency Drill (s)	X	X	X	X
Active Shooter Training	X	X	X	X
Blood Borne Pathogens Training	X	X	X	X
Emergency Preparedness Training	X	X	X	X

Our services become even more important during disasters and emergencies. A key measure of workplace preparedness is our service availability index. See section 7.3-2 for additional safety results.

Figure 7.1-12 – Average Service Availability Index (ASAI)



7.1c Supply-Chain Management Results

BTES purchases electric power from TVA, the nation’s largest public power generator of electricity. TVA and the local power companies of TVA power are known for excellent reliability and competitively priced electric rates. Since 2000, the TVA system has delivered 99.999 percent transmission reliability.

Ontrac, Inc. installs fiber services at the customer’s premise for BTES. We survey each customer following their installation. Part of this survey focuses directly on the installation process and their specific installer so we can provide immediate feedback to Ontrac, Inc. and improve processes.

Figure 7.1-13 Courtesy of Ontrac Installer

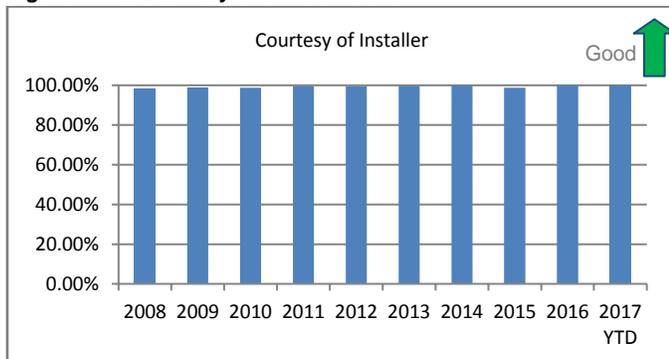
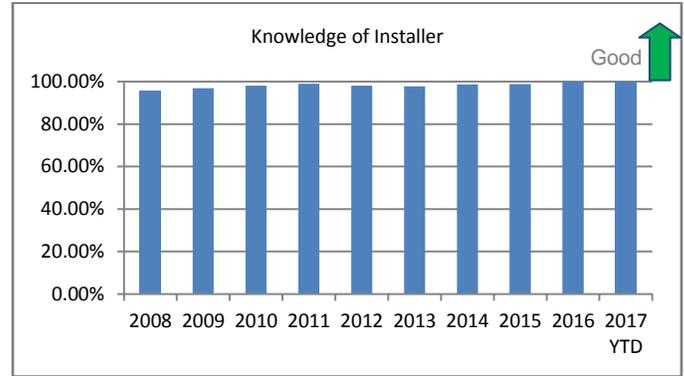


Figure 7.1-14 Knowledge of Ontrac Installer



Additionally, we survey our customers following the installation of a BTES water heater and following the installation of a heat pump financed through BTES. Portions of these surveys are directly related to the installers which are key suppliers of BTES.

Figure 7.1-15 Water Heater Installer Satisfaction

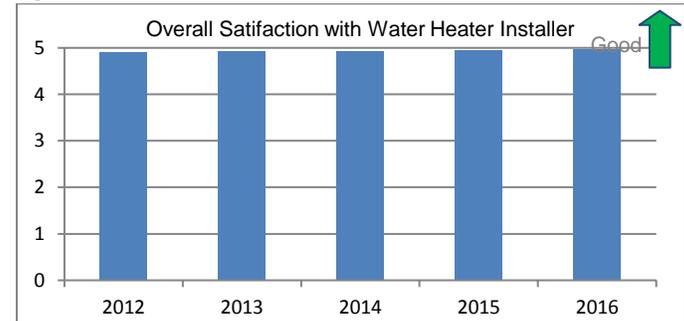
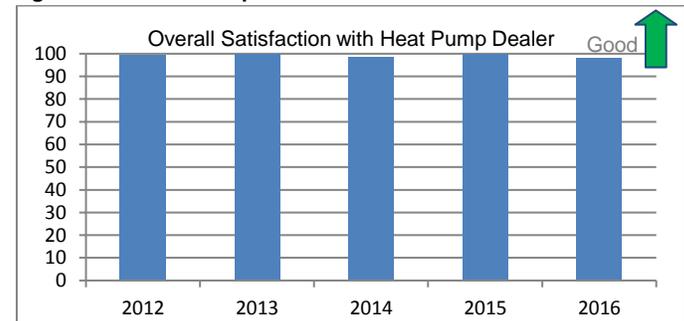


Figure 7.1-16 Heat Pump Installer Satisfaction



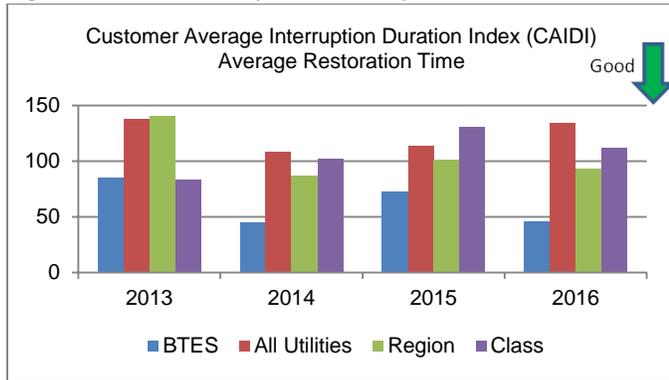
7.2 Customer-Focused Outcomes

7.2a Customer-Focused Results

7.2a (1) Customer satisfaction and dissatisfaction is measured through surveys, reliability levels and rates. J.D. Power defines electric utility satisfaction by examining six factors: power quality and reliability; price; billing and payment; corporate citizenship; communications; and customer service. BTES results are as followed:

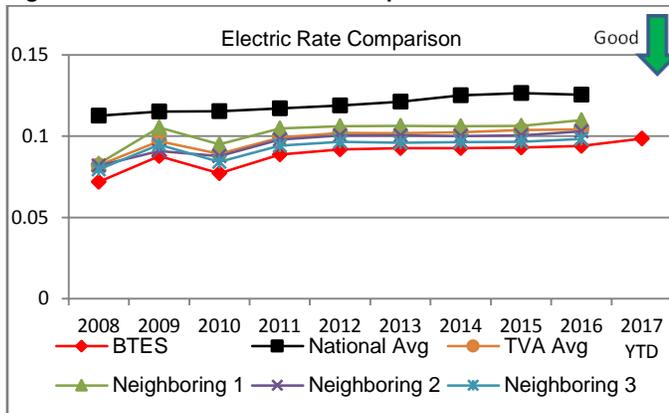
BTES customers are satisfied when their electric is on. When they experience a power outage, they are dissatisfied. According to 2016 outage data, BTES has a 99.989 percent customer satisfaction rate, shown in figure 7.1-12. Customer Average Interruption Duration Index (CAIDI) is a sustained interruption index measured through the national APPA eReliability Tracker.

Figure 7.2-1 Power Quality and Reliability



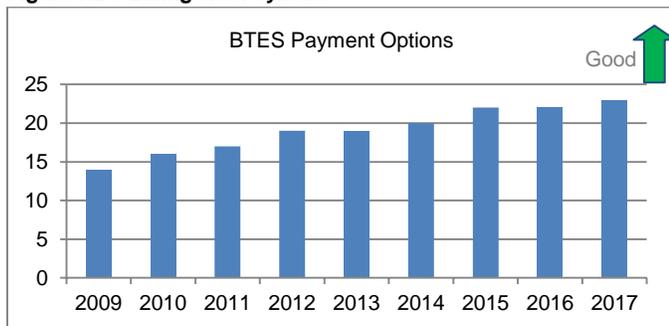
BTES' electric rates have been lower than neighboring TVA Distributor peers, TVA averages and national averages for a significant amount of time (further than what is shown here).

Figure 7.2-2 – Price: Electric Rate Comparison



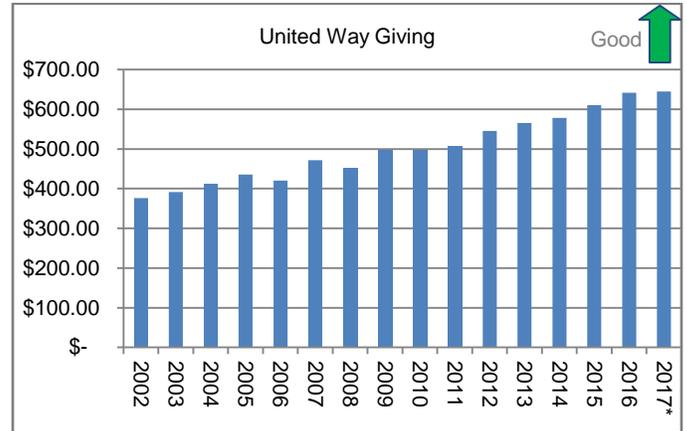
BTES continues to upgrade and add payment options to meet the needs of our customers. We currently have over 20 ways our customers can pay their BTES bill.

Figure 7.2-3 Billing and Payment



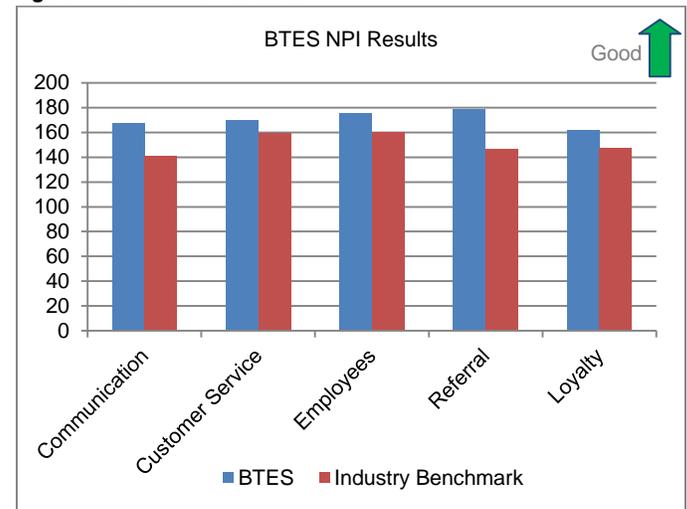
BTES measures corporate citizenship through United Way contributions per employee. BTES is the only company in Bristol with more than 50 employees that has every employee giving at the Extra Mile level which is one-and-one-half hours pay each month.

Figure 7.2-4 Corporate Citizenship – United Way Average Per Capita Gift per Employee



In 2014, the BTES Board of Directors initiated a survey to determine how our customers perceive BTES. This survey confirmed that our communication methods including our employees and their customer service skills were above industry benchmarks. Other communication results are shown in figure 7.2-20.

Figure 7.2-5 Communications



We ask our customers how well our Customer Service and Help Desk Departments performed on our surveys. Both departments reached 100 percent in all categories for 2016. We survey electric customers bi-annually to determine satisfaction and engagement levels, as well as fiber customers when services are installed. We also survey customers who participate in our water heater program and our heat pump program.

Figure 7.2-6 Customer Service Department

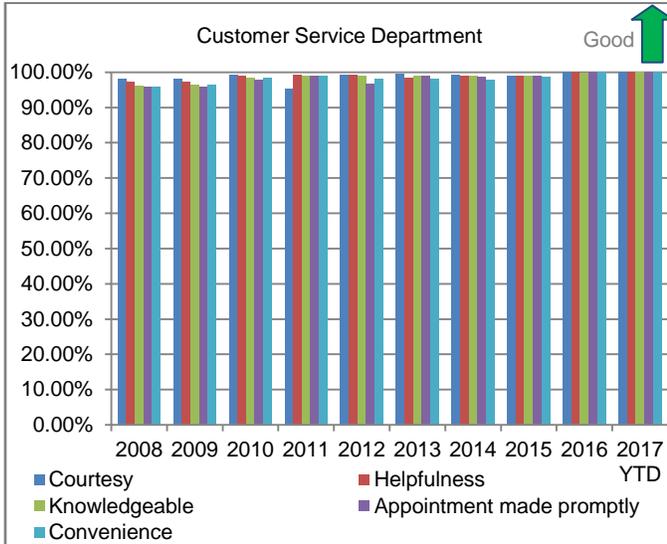


Figure 7.2-9 Internet Satisfaction

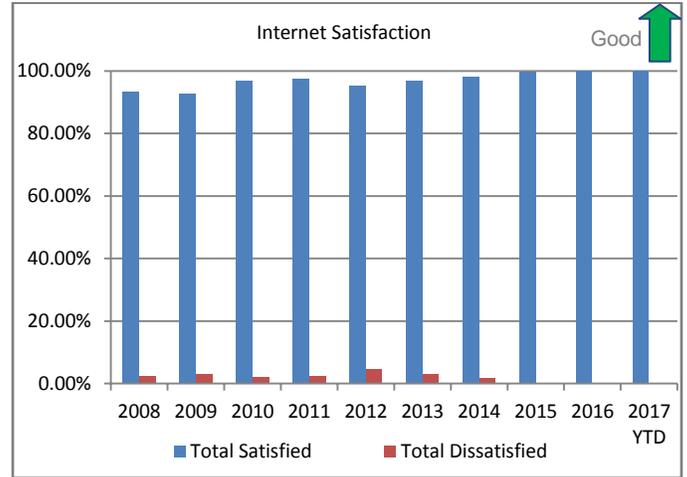


Figure 7.2-7 Help Desk Department

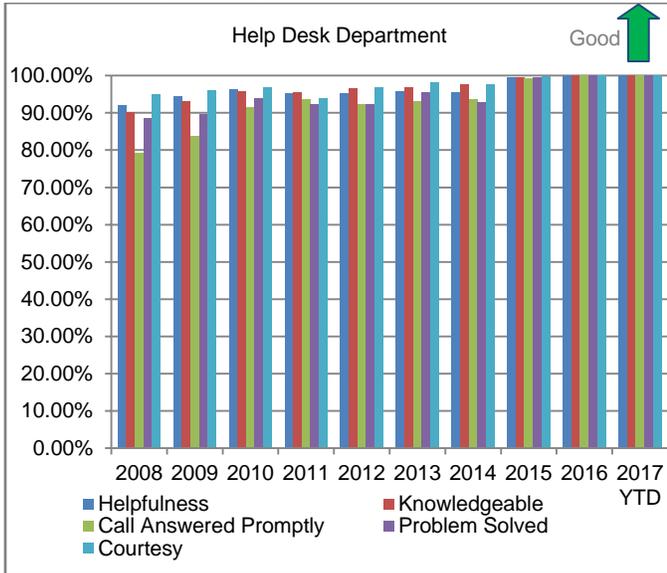


Figure 7.2-10 Telephone Satisfaction

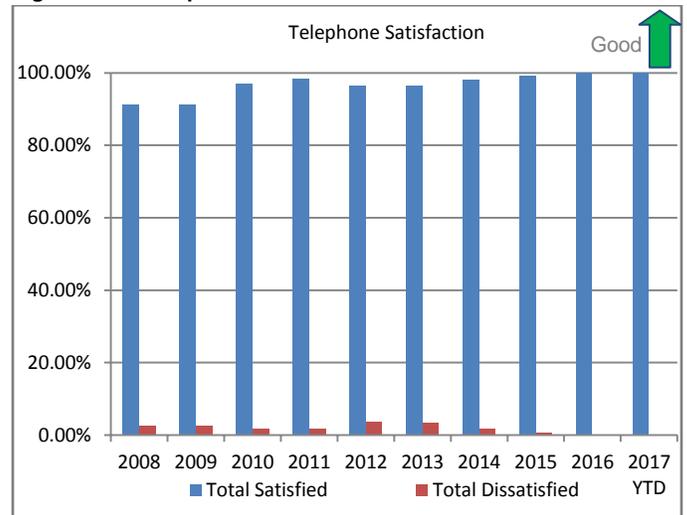


Figure 7.2-8 Water Heater Scheduling

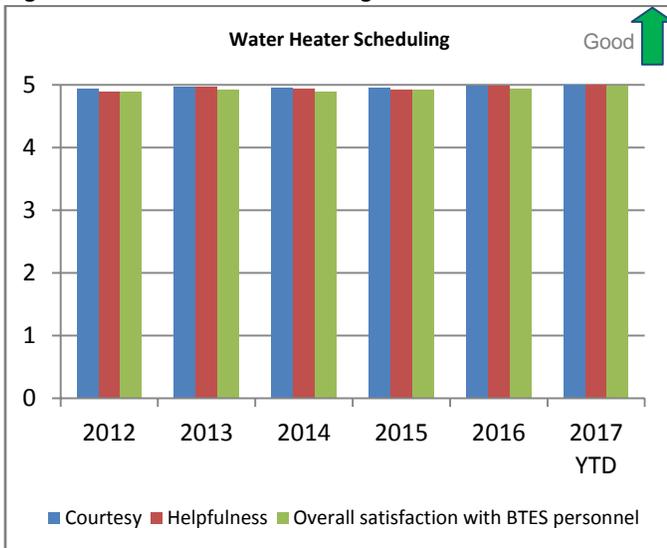
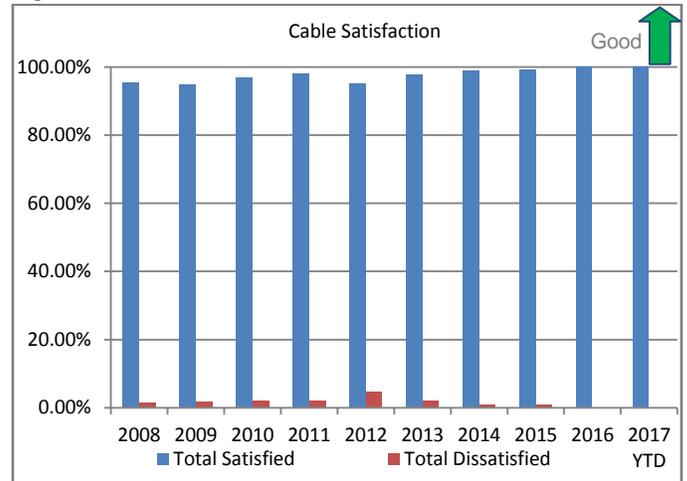


Figure 7.2-11 - Cable Satisfaction



In 2016, we surveyed our customers to determine satisfaction levels in comparison to our direct competitors using a Net Promoter Score with 200 being the highest. BTES scored higher than our competitors in every category.

Figure 7.2-12 2016 Satisfaction Levels

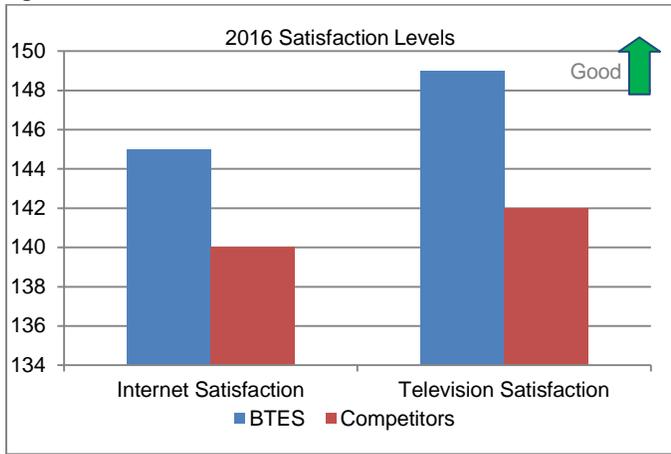


Figure 7.2-15 BTES Ratings vs Industry Benchmarks

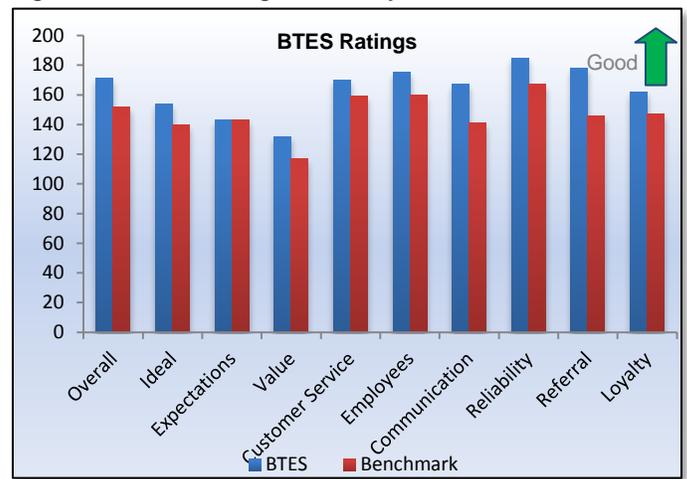
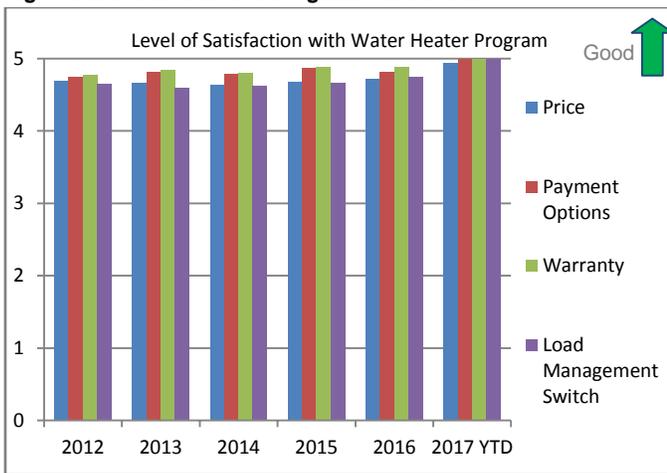


Figure 7.2-13 Water Heater Program Satisfaction



7.2a (2) BTES tracks customer engagement through the continued growth of our electric customers who take our additional services offered. BTES has a base customer count of approximately 33,000 electric customers. Each BTES electric customer can also choose to add additional services such as participating in our water heater program and energy savings loan program, and adding cable, Internet and telephone services. Our total number of services taken, currently 2.6 per customer, has continued to grow although our customer base has remained consistent.

Figure 7.2-14 Heat Pump Program Satisfaction

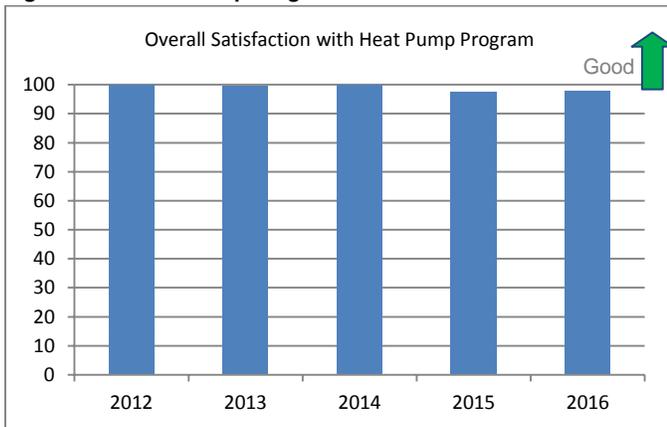
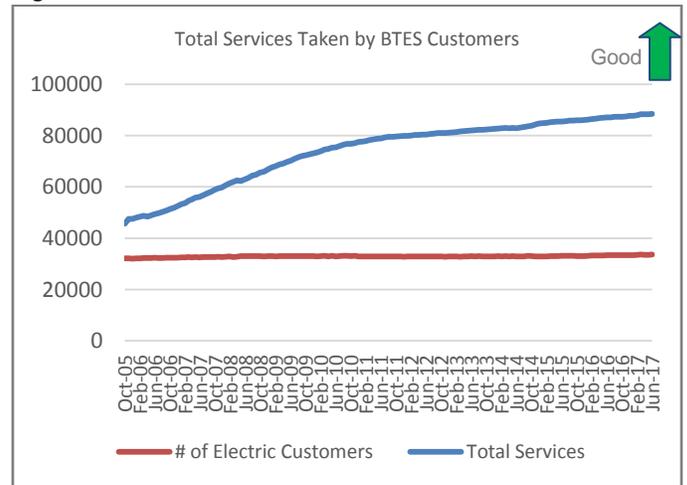


Figure 7.2-16 - Total Services Taken



In 2014 and 2016, the BTES board of directors initiated customer surveys to determine how customers perceive BTES and their overall satisfaction with our services. The survey was conducted by SDS Research, and independent survey organization located in Salt Lake City, UT. The surveys compared BTES electric service to an industry benchmark that was derived from data collected from top performing utilities across the United States and fiber services to competitors in the BTES service area.

Net Promoter Score is also used to measure the willingness of customers to recommend products or services to others and to gauge the customer's loyalty. BTES scores significantly higher than the best in class in the industry. The percentage of customers that would recommend our services is a direct reflection of customer engagement.

Figure 7.2-17 Internet Service Providers NPS

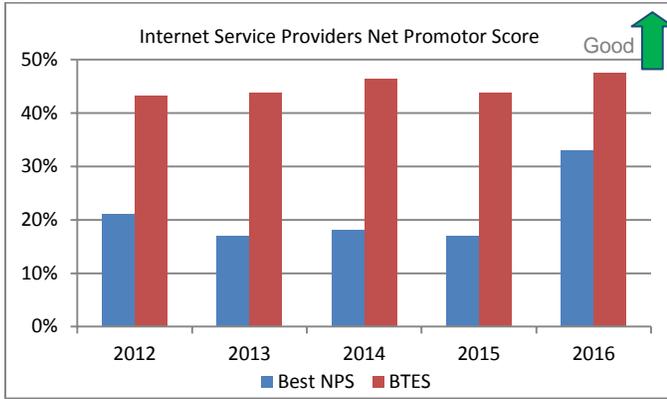
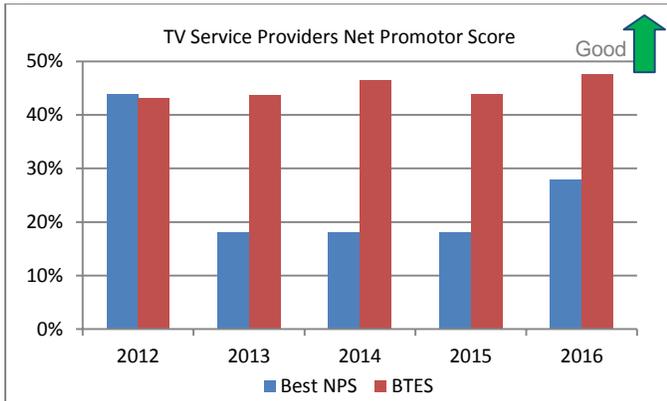


Figure 7.2-18 Television Service Providers NPS



7.2-19 Heat Pump Program Recommend

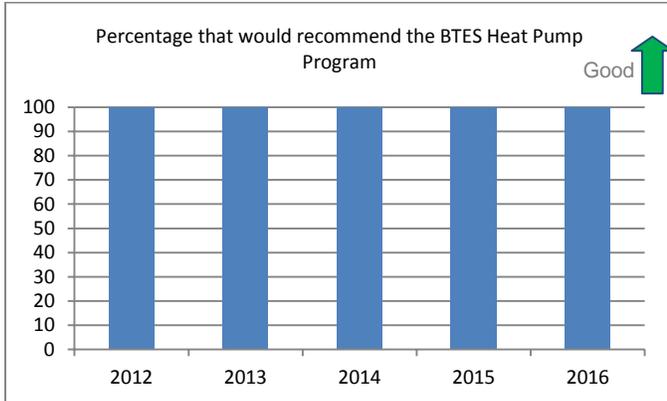
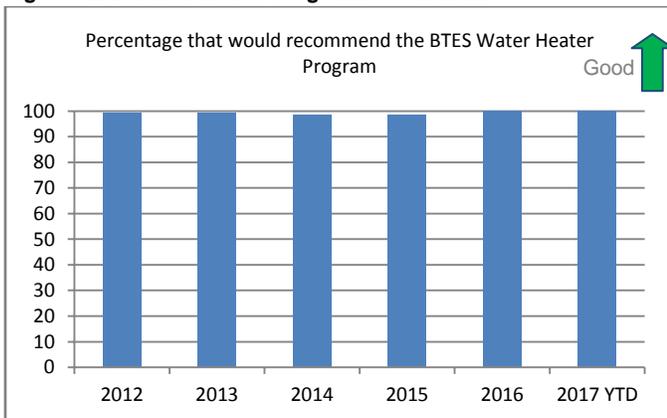
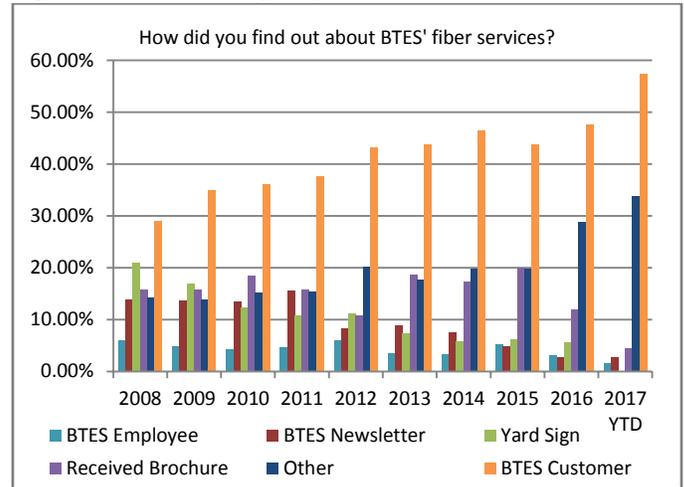


Figure 7.2-20 Water Heater Program Recommend



Additionally, we also track how our customers hear about our services. The number one response for many years has been “BTES Customer” meaning that our customers are recommending our services to others.

Figure 7.2-21 Fiber Survey Response

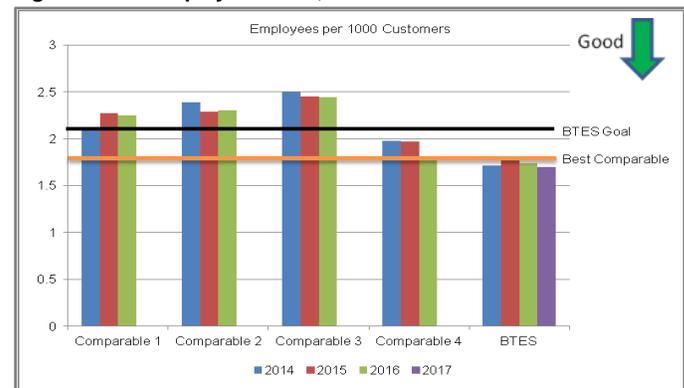


7.3 Workforce Results

7.3a Workforce-Focused Results

7.3a (1) A key indicator of employee capability and capacity is our number of employees per 1,000 customers. As our customers continue to add services, our number of employees per 1,000 customers has remained constant. Figure 7.3-1 shows our results compared to those with a similar number of customers.

Figure 7.3-1 – Employees Per 1,000 Customers



Confidential Employee Performance Appraisal results are available on site.

7.3a (2) Safety excellence at BTES is measured by the number of employee hours since last lost-time accident discussed in 7.1a. Each year, utilities submit safety information to APPA for national benchmarking. BTES ranks best in class in safety results. Figure 7.3-3 illustrates the average number of days away from work cases due to a lost time accident.

Figure 7.3-2 – Average Incident Rate per Year

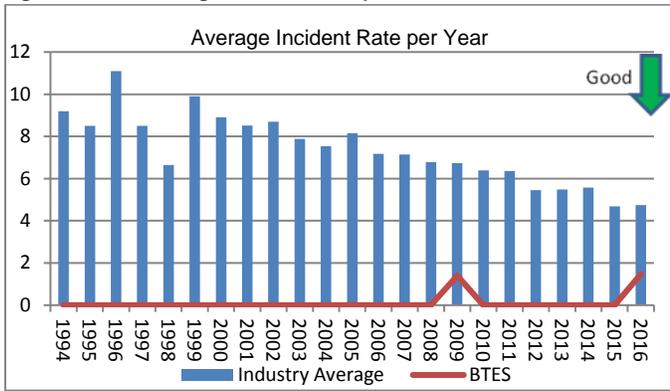
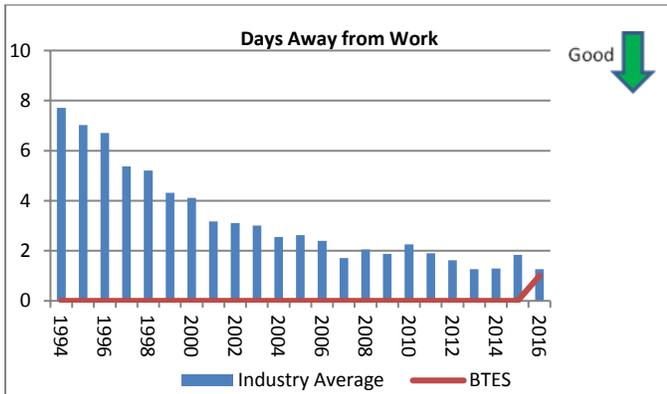
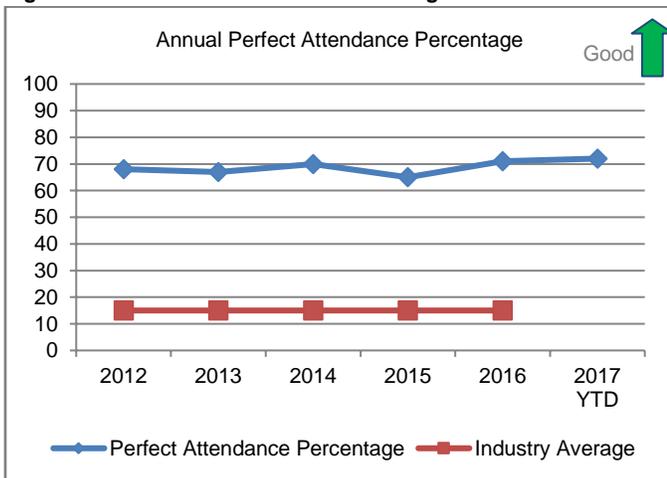


Figure 7.3-3 – Average Number of Days Away from Work Cases due to a Lost Time Accident



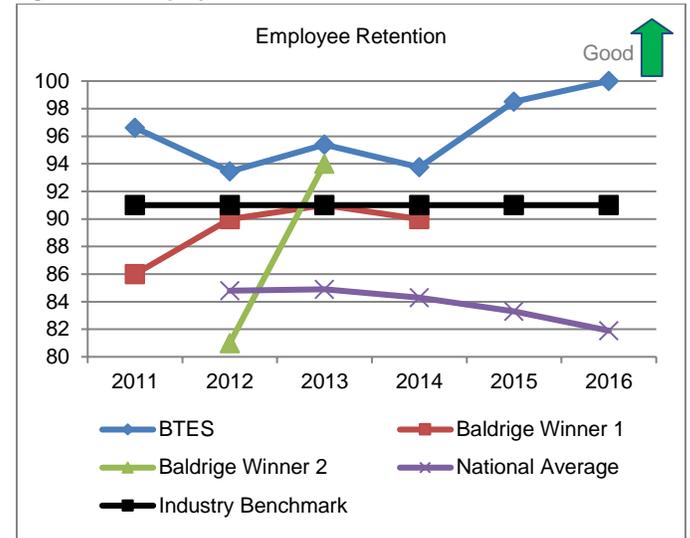
A healthy environment is also encouraged through perfect attendance. Perfect attendance is achieved when an employee uses no sick days during the calendar year. Employees receive an additional day of vacation if they achieve perfect attendance. From our research, perfect attendance percentages in the utility industry are normally in the 10-20 percent range while BTES percentages are consistently above 60 percent.

Figure 7.3-4 – Perfect Attendance Percentage



7.3a (3) As stated in BTES' mission, we are not only committed to exceeding the expectations of our customers but also our employees. BTES strives to discover the right employees for the right positions and each employee goes through an intensive interview process to ensure we gain the correct person. This is shown through our high employee retention results.

Figure 7.3-5 Employee Retention



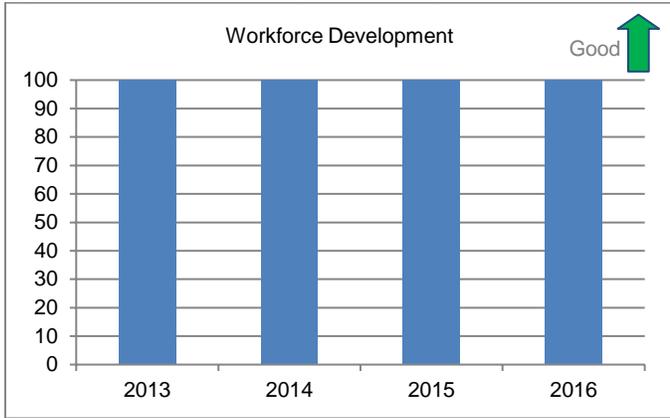
All but one supervisor at BTES has been promoted from within BTES. Our high participation rate in our workforce development and trainings (figure 7.3-6) shows that employees are engaged in their career and want to continue down the path of continuous improvement.

BTES also measures workforce engagement and satisfaction through high productivity levels in reliability, safety and financial outcomes discussed in 7.1a.

7.3a (4) BTES creates an environment for organizational and workforce learning by encouraging employees to participate in programs that emphasize quality training. Employees are encouraged to participate in the BTES Professional Development Reimbursement Program in which BTES will help pay for any full time employee to further their training and/or education.

Every employee at BTES has participated in some type of workforce development opportunity since 2013. This shows that employees are not only encouraged to participate in these programs and trainings, but that BTES is focused on workforce and leadership development through continuous learning. Training and development is an ongoing process and should always be viewed as an opportunity for personal and professional growth.

Figure 7.3-6 Workforce Development Participation



7.4 Leadership Outcomes

7.4a (1-5) Senior leaders at BTES use our communication process, detailed in Category 1, to communicate and engage with the workforce and to deploy our vision and values. All senior leaders have an open door policy, are available in employee work locations and encourage communication at every level.

BTES Senior Leaders are present at each weekly meeting, as shown in figure 7.4-1.

Figure 7.4-1 Weekly Meeting Senior Leader Attendance

Weekly Meeting	Senior Leaders Present
CIT	5
Engineering Meeting	2
Outage Meeting	3
Customer Service Meeting	5
Carina (Key Supplier) / Water Heater Project	3
Creative Design Team	3

All five senior leaders participate in each meeting throughout the year as projects arise or additional communication is needed. BTES also uses our storytelling approach to promote a culture focused on our values and KSF.

Internal and external audits are key checks and balances of our fiscal system (figures 7.1-7, 7.4-2). Our work process and safety programs comply with or exceed requirements set by our regulatory bodies illustrated in our organizational profile. This is illustrated by our safe working history and in our audit findings and financial performance. BTES is regulated by the Tennessee Valley Authority, which requires monthly and yearly reports and approves electric rates. Other measures are in place with TVA and guidelines which prevent certain uses of funds, in order to protect customers. Telephone customers can issue complaints directly to the TRA.

Stakeholder trust in the senior leaders and governance of our organization is built on a foundation of ethical behavior. Audits, assessments and reviews by senior leaders and supervisors help to ensure ethical behavior (figure 7.4-2).

Figure 7.4-2 – Breaches in Ethical Behavior

	Independent Annual Financial Audit	TVA Annual Rate and Credit Check	Red Flag Policy Compliance	CPNI
2013	Clean	No unresolved issues	Zero breaches	Zero breaches
2014	Clean	No unresolved issues	Zero breaches	Zero breaches
2015	Clean*	No unresolved issues	Zero breaches	Zero breaches
2016	Clean	No unresolved issues	Zero breaches	Zero breaches
2017	In process	No unresolved issues	Zero breaches	Zero breaches

**clean report, 2 internal issues found and resolved*

One of our key measures of community support is through our support of the United Way which has steadily grown over the past ten years (figure 7.2-4).

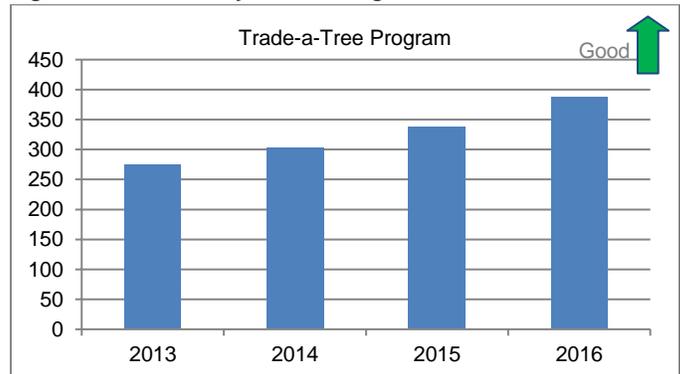
Figure 7.4-3 Potential Job Growth

2012	375
2013	445
2014	185
2015	325
2016	754
5-Year Total	2084

BTES works with the community partners to identify and assist businesses with expansions or relocations to our area resulting in the potential for new jobs.

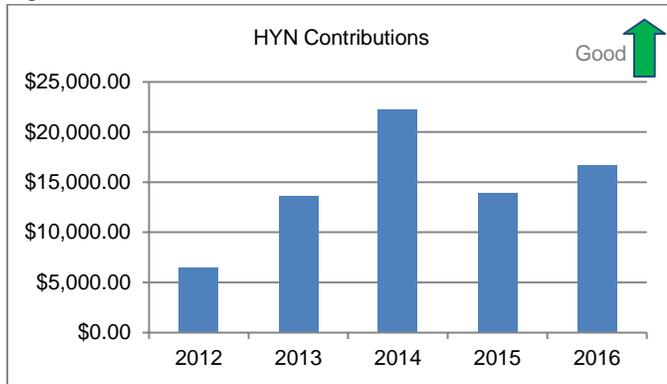
While we know that trees are important to our community, trees are our largest cause of service interruption. Our Trade-a-Tree program has been successful in removing trees from utility lines while still keeping the benefits of having trees. Since 1997, we have planted over 5,000 trees through this program.

Figure 7.4-4 Community Tree Planting



Our HYN program has been successful for over 15 years in assisting residential customers in paying their electric bills during difficult times. Almost \$73,000 has been contributed to this program in the past five years, helping 428 families.

Figure 7.4-5 HYN Contributions



7.4b Strategy Implementation Results

BTES' results for the achievement of our strategic goals, organizational strategy and action plans are listed below.

Figure 7.4-6 – Strategic Goals and Measures

Strategic Goals	Figure Numbers
1 – Deliver safe, reliable, cost-effective services to our customers.	All of Category 7
2 – Maintain financial strength and integrity while effectively utilizing financial resources to contribute to efficient operation.	7.1-2,3,8,10; 7.2-2,16; 7.3-1,5; 7.4-4; all 7.5
3 – Maintain retail rates that are fair, reasonable, non-discriminating & consistent with sound business practices, long-range financial goals & cost of service philosophy.	7.1-2,3,8,10; 7.2-2,16; 7.5-1-3
4 – Market products and services while meeting current and future customer needs.	7.1-4-6,9,13-16; 7.2-3,5-21; 7.4-1,4,5; 7.5-3-8
5 – Utilize employees to efficiently serve customers	all 7.2 & 7.3
6 – Create awareness of our services through promotion.	7.1-4-6,9,13-16; 7.2-3,5-21; 7.4-1,4,5; 7.5-3-8

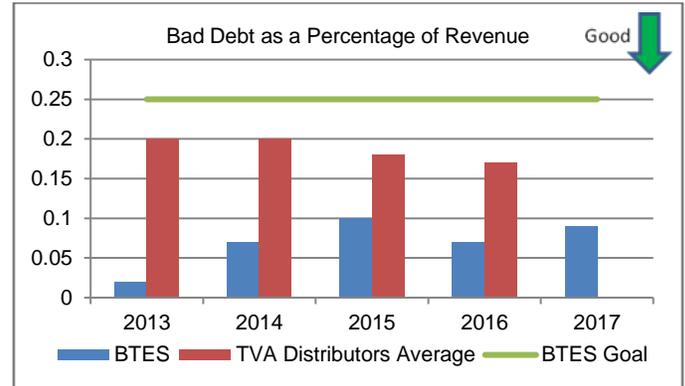
7.5 Financial and Market Outcomes

7.5a Financial and Market Results

7.5a (1) The Accounting Department creates monthly financial statements that allow us to review and measure the financial condition of BTES. Being a municipal electric company, our customers are ultimately our owners. Resultantly, profit is not only determined by our net income but also by how much we are able to leave in our customers' pockets, as shown in figure 7.1-3, and in our monthly power bill savings shown in figure 7.1-8. Being debt free for many years and accumulating substantial reserves allowed us to build a state-of-the-art fiber optic

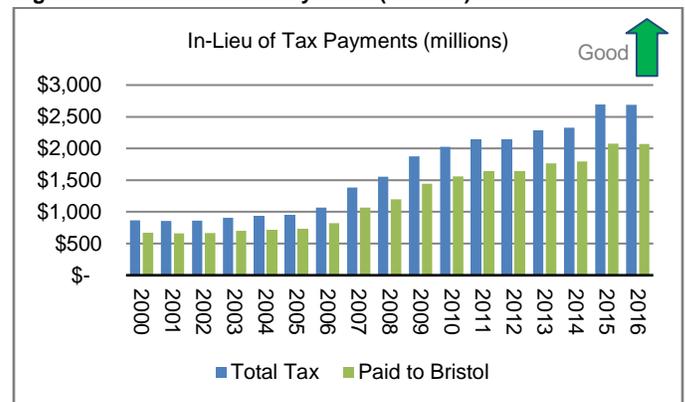
system to enhance the electric service we were already providing, with limited new debt. In addition, BTES reviews electric bad debts as a percentage of electric retail revenue to ensure financial strength and integrity. BTES' goal is to contain bad debt losses to not more than 0.25 percent of electric retail revenues by the deposit and collection programs. BTES exceeds this goal and is the best in class of all the TVA local power companies.

Figure 7.5-1 – Electric Bad Debts



Another key measure is our in-lieu of tax payments to the City. Historically, BTES has been the largest taxpayer to the City of Bristol, Tennessee and has paid the maximum in-lieu-of taxes allowed by the State of Tennessee. We pay approximately three times as much tax as an investor-owned utility would pay, providing additional resources to our City, resulting in additional benefits to our customers.

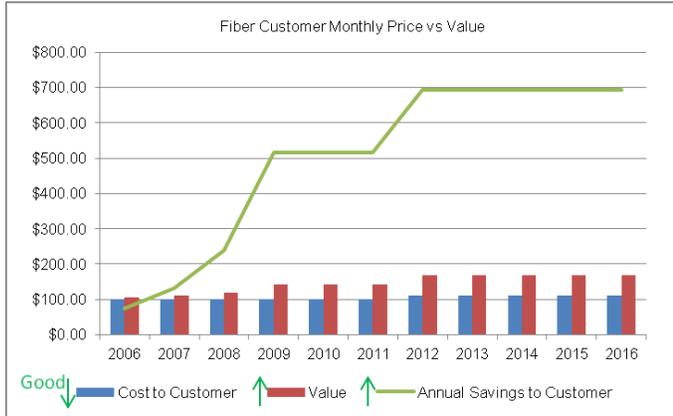
Figure 7.5-2 In-Lieu of Tax Payments (millions)



During our SPP, BTES senior leaders review our fiber package offerings to our customers. We have continued to add value to the package while limiting our price increase to once in 2012. Additions to the package have included increased Internet speeds, channel offerings, and telephone features. Our annual package savings to our customers is significant when compared to a la carte pricing (value). Unlike our competitors, BTES does not offer special pricing for new customers or use the "bait

and switch” technique. We believe that all of our customers should receive the best price possible. While new customers at our biggest competitor can receive a similar package for approximately \$10 less for the first year, the price increases significantly once the initial term expires – sometimes up to \$80 more (depending on the customer and location). BTES documents annual competitor pricing data which is available on site.

Figure 7.5-3 Essentials Package Monthly Price versus Value



BTES has received the annual Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting twenty years in a row. As a result of quality efforts and initiatives, BTES is able to operate on a much smaller margin of revenue less power costs while maintaining a consistent cash flow. Those efforts include heat pump and water heater installations, line loss reductions, employees per 1,000 customers, careful attention to safety and workers compensation modification rates, and economic development that helps increase sales.

7.5a (2) In 2016, a third-party firm conducted a survey to determine BTES’ market share for Internet, telephone and cable services. BTES also reviews data on electric usage for heat and water heating in new homes where natural gas is available.

Figure 7.5-4 Internet Market Share

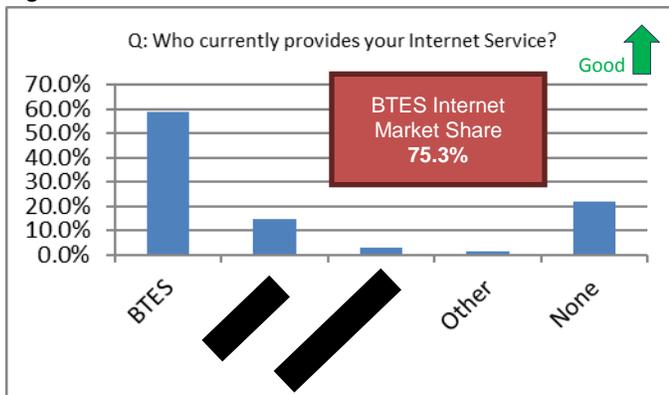


Figure 7.5-5 Telephone Market Share

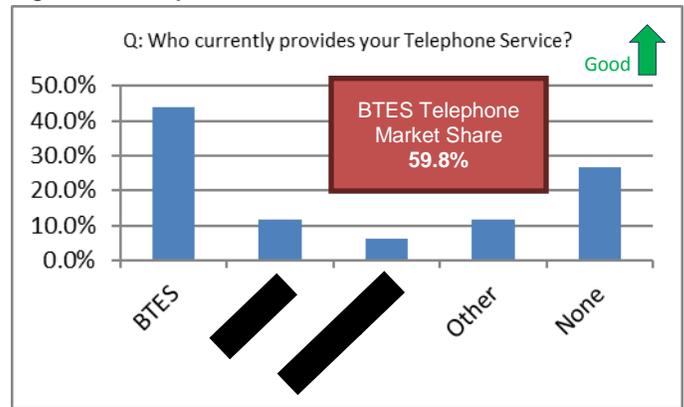


Figure 7.5-6 Cable Market Share

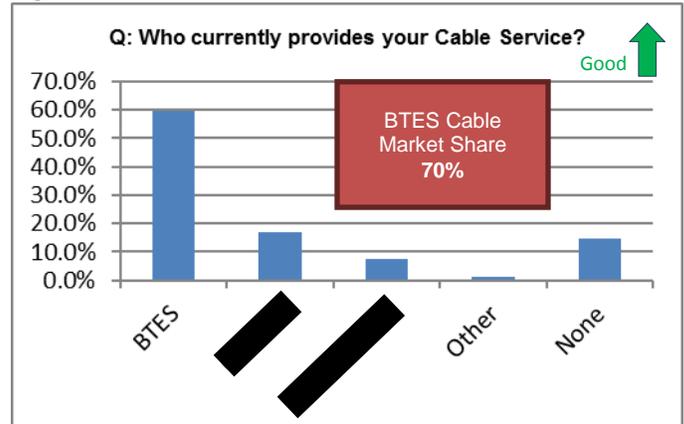


Figure 7.5-7 – Electric Water Heater Take Rate

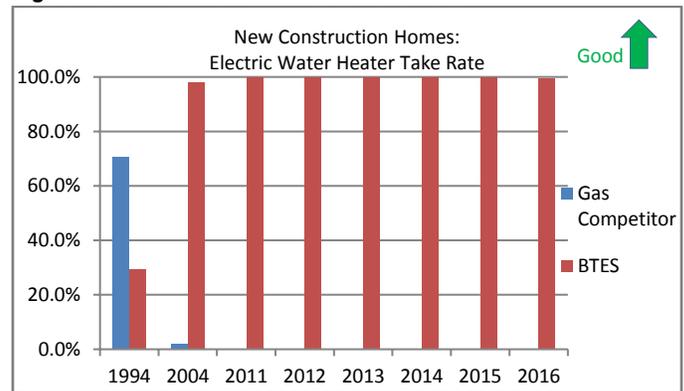


Figure 7.5-8 – Electric Heating Take Rate

