

## FEBRUARY 2019 BOARD MINUTES

The regular meeting of the Bristol Tennessee Essential Services Board of Directors was held on Wednesday, February 20, 2019 at noon at 2470 Volunteer Parkway, Bristol, Tennessee.

### Call to Order

Chairman Larry Clarke called the meeting to order at 12:01.

### Board Members Present

Larry Clarke, Michelle Denise, David Akard, Gary McGeough and Erin Downs.

### Staff

CEO Dr. Mike Browder, Director of Engineering Clayton Dowell, Director of Accounting and Finance Lola McVey and Director of Management Services Tara McCall.

### Minutes

Mr. Clarke presented the minutes of the January 2019 meeting. Ms. Downs made a motion to accept the minutes. Mr. McGeough seconded the motion and they were unanimously approved.

### Safety Report

Ms. McCall reported that BTES has completed 158,681 safe working hours as of January 31, 2019 without a lost time accident. BTES submitted the Tennessee Valley Public Power Association (TVPPA) SP2 Safe Power Provider application on February 14, 2019. This application includes a self-assessment that will be reviewed by TVPPA and an on-site audit of BTES' building and crews on location for compliance with the Safe Power Provider requirements.

### Financial Reporting

#### Electric Business Unit

The CEO presented the January 2019 year-to-date financial report as follows:

	YTD Actual	YTD Budget
Total Electric Revenue	\$ 50,637,600	\$ 48,715,200
Other Electric Revenue	\$ 3,789,200	\$ 4,074,900
Other Income	\$ 670,800	\$ 400,000
Total Operating Expense	\$ 54,437,300	\$ 53,138,200
Non-Operating Expense	<u>\$ 942,700</u>	<u>\$ 634,100</u>
<b>Net Income (Loss)</b>	<b>\$ (282,400)</b>	<b>\$ (582,200)</b>
Operating & Maintenance Expense	<b>\$ 5,607,000</b>	<b>\$ 5,996,400</b>

### **Cable/Internet/Telephone**

Dr. Browder pointed out that while total services have decreased from the same period last year, the number of Internet services continue to increase.

### **TVA Fuel Cost**

The March 2019 total monthly fuel cost will be 1.921 cents per kWh for residential customers. According to TVA, the overall system average fuel rate for March 2019 is approximately seven percent lower than the three-year average for March. This is primarily due to expectations for lower March sales and lower purchased power and gas prices.

<b>Residential</b>	<b>February 2019</b>	<b>March 2019</b>
	Fuel Cost	Fuel Cost
500 kWh	\$10.24	\$9.61
1000 kWh	\$20.47	\$19.21
1500 kWh	\$30.71	\$28.82
2000 kWh	\$40.94	\$38.42

### **TV2 Media Room Support for 2019**

**Background:** Prior to 2018, Nokia provided support to our Internet Protocol Television (IPTV) Media Room System. In 2018, Nokia no longer offered this support and the board approved the selection of TV2 Consulting to provide the following support:

- Provide 24X7X365 support coverage for the BTES, IPTV Media Room.
- Reactive engineering services will provide access to the Media Room technical support engineers with years of experience with the Media Room platform.
- Trouble resolution including defect ticket creation, trouble analysis and isolation, escalation when necessary, status updates, fix validation, resolution and root cause analysis.
- Proactive engineering to provide preventative maintenance and systems monitoring.
- Video probe licenses so that the system can automatically monitor channels visually and report any that are experiencing problems.

The price for 2019 is \$105,195.50 and has increased three percent over the 2018 pricing. There was an increase in proactive support hours from 120 to 160 hours. The hours were increased because we used 170 hours of proactive support in 2018. The TV2 proactive support has greatly increased the reliability and performance of our IPTV service. BTES has negotiated the proactive support hours for 2020 and 2021 down to 120 hours at a price of \$97,799 with the option of purchasing additional blocks or 40 hours of support (if needed) at \$7,800 per block and zero percent annual percentage increase.

After some discussion and comment, Ms. Denise moved to approve the three-year agreement to use TV2 Consulting at a cost of \$300,793 for all three years with the option to purchase

additional blocks of 40 hour per block. Mr. Akard seconded the motion and the board voted unanimously to approve the procurement.

### **Nokia Technical Assistance Center Coverage 2019**

BTES has received the 2019 contract term pricing from Nokia for continued Technical Assistance Center (TAC) support which is critical to our BTES network.

#### **Definitions:**

- OLT – Optical Line Terminal. Electronic equipment in the substation that the ONTs connect to through the fiber network.
- ONT – Optical Network Terminal. The gray box on the side of the customer's house. Has the Ethernet, phone and cable TV connections in it.
- AMS – Access Management System. The server and program that manages all the OLTs and ONTs.
- G6 – It is the gateway between the phone switch and the customer network.
- NT cards are the network uplink cards for the Optical Line Terminal, the large Ethernet connections going to the core of the network.
- LT cards are the cards facing the customers. Each LT has from two to eight fibers, with each fiber serving 32 customers.
- TPM cards that provide the connections for the circuits between the phone switch and the Optical Line Terminals.
- FTTU – Fiber to the User

Nokia Technical Assistance Center (TAC) will provide:

- Access to technical support engineers for support issues with our OLT, ONT, AMS and G6 equipment.
- Seamless trouble resolution including defect ticket creation, trouble analysis and isolation, escalation when necessary, status updates, fix validation and resolution.
- Return for repair of ONTs, OLT hardware (NT and LT cards), G6 hardware (TPM and associated cards)

We use this service for technical support as well as processing and repair of failed ONTs, LT cards, NT cards and TPM cards. These are all critical elements of the Nokia FTTU network. This is also a great resource for support for AMS as well as integration with Five Inc and our ONT alarming system we use for power outage and inactive ONT notifications.

Dr. Browder reviewed the procurement and after some discussion recommended the renewal of this coverage for a total of \$100,642 which is an increase from last year's cost of \$98,985. Dr. Browder explained the increase in cost is due to G6 equipment and the new ONTs that have been added to the system. Mr. McGeough moved to approve the purchase, Mr. Akard seconded the motion and the board voted unanimously to approve the purchase.

## **2018 Year End Review:**

Dr. Browder reviewed several accomplishments achieved in the calendar year of 2018 and provided the status of other projects:

- BTES employees completed 147,198 safe working hours without a lost time accident.
- 63 percent of BTES employees had perfect attendance in 2018
- 37 full time employees did not miss a single day in 2018
- BTES installed 465 water heaters in 2018
- There were a total of 18,087 load management switches on BTES water heaters at the end of 2018.
- BTES made loans for 72 residential Heat Pumps (\$393,276) and 6 additional Energy Savings Loans (\$23,262)
- Electric Reliability figures reported the following:
  - Annual Goal is less than 60 minutes per customer
  - Actual Outage was 59 minutes per customer
  - An estimated 77 additional minutes were saved because of the installation of an automatic switching system.
- The Interactive Voice Response system
  - Handled 61,839 customer phone calls without the use of an employee
  - Allowed for 4,580 billing arrangements without the use of an employee
  - Accepted 13,481 credit card payments and 10,241 e-checks payments
- Dr. Browder reported that over 560 customers have opted-in to participate in the Round Up program where customers agree to round their BTES bill up to the next full dollar value. This program, together with the Help Your Neighbor program provides funds to assist the less fortunate in our community pay their electric bills. Dr Browder also provided an overview of what other utilities are doing with opt-out programs and legislation proposed regarding these programs. The idea of requiring customers to manually opt-out of a program, rather than provide direct permission to be included sparked some discussion on how BTES should respond if the opt-out approach is adopted. Since no decision was required, it was agreed to table the issue until our next board meeting.
- Dr. Browder also provided photographs and reviewed the progress of the new Sharps Hollow Subdivision, the expansion of Scott Substation, additions to Vance Substation, the new Sullivan East Middle School, the status of the underground electrical wire replacement in several subdivisions, progress on the grading at the Bristol Business Park and work being done on the new Sullivan County High School.

## **Pending Items**

### **Prepay Program**

Ms. McVey reported that Carina Technology is still testing the prepay system internally and BTES is continuing to work with Southeastern Data Cooperative (SEDC) to resolve issues with the remote payment integration.

**Cybersecurity Audit**

Mr. Dowell reported that the cross-functional team is still working on the American Public Power Association (APPA) self-assessment program. This process will continue for a couple more months.

**CEO Report:**

In an effort to keep the Board advised of potential meter collar anomalies, Dr. Browder provided a brief overview of the Carina Technology program. He explained that BTES was part of a Tennessee Valley Authority load management program, (consisting of several municipal utilities) for over thirty years. The program provided a water heater switch that could result in substantial cost savings and more efficient use of water heaters. With enhanced equipment opportunities, Carina Technology developed a new WISE 2 switch that communicates through our 10 Gigabit fiber system.

Dr. Browder explained that BTES has two versions of a meter collar, an Electronic Metering Device (EMD) and a Carina Point Metering Device (CPMD). The EMD is used to read the meter and operate the Water Heater Information Solution for Energy (WISE 1) switch. There are about 11,000 EMDs in operation. The CPMD has the functionality of the EMD but has a relay to open remotely which disconnects the power from BTES to the customer. There are about 9,600 CPMDs in the field which may be used in the prepay system and the collection process. Also, the EMDs and CPMDs provide power to the battery box for the Optical Network Terminal (ONT). These devices work together to report power outages to the dispatch center. BTES has experienced some failures in the CPMD, which is the interface for communication between the customer's meter and BTES.

The CPMDs could turn off or turn on the power to the customer remotely. Dr. Browder explained that BTES has experienced a less than one percent rate of failure and has been collecting data including dates, issues, customers, type of failure, time in service, reason for the failure and any damage/safety issues.

Dr. Browder also assured the Board that BTES has been working with Carina Technology to identify anomalies and engineer corrective action, redesign and repair any CPMD found defective. This is the first generation CPMD design working over a 10 Gigabit system, and Carina Technology is committed to investigating, engineering design and correcting of any problems.

There have been two problems identified in the CPMD. The first is that the insulation on the wires could wear through from friction and short out causing the equipment to turn off and on rapidly. All in-stock affected units were sent back to be repaired. As the units are repaired, the latest firmware is installed and the units are retested. BTES is receiving those as needed. The second problem is that the relay on the CPMD would open without a command being sent. This happened to CPMDs that have a high number of resets and applies to only about 200 locations. We are working to determine why the CPMDs reset at particular locations and whether it is a hardware or firmware issue. There are no known safety issues.

Dr. Browder reported that a BTES cross-functional team is deeply involved and conducts weekly conference calls and are working through the resolution of the Carina equipment issues to resolve the problem of the relay opening and to expedite the prepay program. This is expected to be an ongoing testing and monitoring program until BTES is satisfied that all our concerns have been resolved. These devices are the first of their kind and are operating over a high speed 10 Gigabit communication system.

Dr. Browder reminded the board that BTES has been invited to a lunch meeting with the Bristol Tennessee City Council on Friday, March 1, 2019 at noon at the Steele Creek Nature Center.

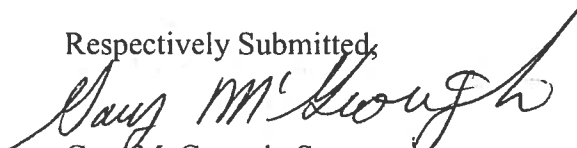
**Board Comments:**

There were no board comments.

There being no further business to come before the Board, the meeting was adjourned at 2:09 pm.

The next meeting is scheduled for Wednesday, March 20, 2019 at noon.

Respectively Submitted,



Gary McGeough, Secretary