MARCH 2019 BOARD MINUTES

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

Call to Order
Chairman Larry Clarke called the meeting to order at 12:00.

Board Members Present
Larry Clarke, David Akard, Gary McGeough and Erin Downs.

Board Member Absent
Michelle Denise

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 February 2019 meeting. Ms. Downs made a motion to accept the minutes. Mr. Akard seconded the motion and they were unanimously approved.

Safety Report
Ms. McCall reported that BTES has completed 168,968 safe working hours as of February 28, 2019 without a lost time accident. This month’s safety training was Right to Know and OSHA Updates.

Financial Reporting
Electric Business Unit
The CEO indicated that BTES had a very good financial month due to the warm February temperatures and rain. Dr. Browder presented the February year-to-date financial report as follows:

<table>
<thead>
<tr>
<th></th>
<th>YTD Actual</th>
<th>YTD Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Electric Revenue</td>
<td>$ 59,023,700</td>
<td>$ 57,099,900</td>
</tr>
<tr>
<td>Other Electric Revenue</td>
<td>$ 4,565,000</td>
<td>$ 4,569,500</td>
</tr>
<tr>
<td>Other Income</td>
<td>$ 773,900</td>
<td>$ 457,700</td>
</tr>
<tr>
<td>Total Operating Expense</td>
<td>$ 61,772,900</td>
<td>$ 61,369,300</td>
</tr>
<tr>
<td>Non-Operating Expense</td>
<td>$ 1,041,600</td>
<td>$ 724,200</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>$ 1,548,100</td>
<td>$ 33,600</td>
</tr>
</tbody>
</table>

Operating & Maintenance Expense  $ 6,377,200  $ 6,794,800
Cable/Internet/Telephone
Dr. Browder pointed out that cable and telephone services are decreasing but not as much as expected. Internet services continue to increase.

TVA Fuel Cost
The April 2019 total monthly fuel cost will be 1.802 cents per kWh for residential (RS) customers. According to TVA, the overall system average fuel rate for April 2019 is approximately 10 percent lower than the three-year average for April. This is primarily due to expectations for higher hydro generations for April combined with mild weather and lower sales in February.

<table>
<thead>
<tr>
<th>Residential</th>
<th>March 2019</th>
<th>April 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fuel Cost</td>
<td>Fuel Cost</td>
</tr>
<tr>
<td>500 kWh</td>
<td>$9.61</td>
<td>$9.01</td>
</tr>
<tr>
<td>1000 kWh</td>
<td>$19.21</td>
<td>$18.02</td>
</tr>
<tr>
<td>1500 kWh</td>
<td>$22.50</td>
<td>$27.03</td>
</tr>
<tr>
<td>2000 kWh</td>
<td>$38.42</td>
<td>$36.04</td>
</tr>
</tbody>
</table>

BTES Open Door Policy Approval:
To provide as much access and communication as possible, BTES developed an Open Door Policy requiring all directors, officers and employees to observe high standards of business and personal ethics in the conduct of their duties and responsibilities. As employees and representatives of BTES, we must practice honesty and integrity in fulfilling our responsibilities and comply with all applicable laws and regulations. This means, literally, that every manager’s door is open to every employee. The purpose of the policy is to encourage open communication, feedback and discussion about any matter of importance to any employee.

Dr. Browder explained that open communication and interaction throughout BTES has always been a standard practice; however, he felt that a formal policy outlining the details would not only be appropriate but remove any false expectations and provide an expanded basis for communication. After some discussion and explanation, Mr. Akard moved to approve the Open Door Policy. Mr. McGeough seconded the motion and the board unanimously approved the policy.

Pending Items
Prepay Program
Ms. McVey reported that BTES is now testing the prepay system with good results. BTES continues to work closely with Southeastern Data Cooperative (SEDC) on the integration of information and to make sure that the equipment is working as expected.
Cybersecurity Audit
Mr. Dowell provided an overview of BTES' Cybersecurity actions and reiterated BTES' use of the American Public Power Association (APPA) self-audit program. He indicated that with the first level of self-audit complete, a cross functional team meets weekly to complete the next level of the APPA self-assessment. This level of analysis is expected to take several months and involves all types of cyber analysis, training and prevention. BTES has also received a quote from an outside cybersecurity contractor to do a parallel analysis of BTES' systems and is reviewing and evaluating the quote/proposal.

Electric Meter Anomalies:
Dr. Browder provided the board with an update on the Carina Point Metering Device anomalies. Dr. Browder reiterated that BTES has two versions of the meter collar, an Electronic Metering Device (EMD) and a Carina Point Metering Device (CPMD). The EMD is used to read the meter, provide power to the Optical Network Terminal (ONT) and operate the Water Heater Information Solution for Energy (WISE1) switch. The CPMD has similar functionality of the EMD and operates the WISE2 switch. Additionally, it has the capability to remotely open/close an included relay that can disconnect/connect the power to a BTES customer. Dr. Browder indicated that the synergies of the water heater program and load control program that includes the implementation of these electronic device, have saved BTES customers $4 million annually. A significant portion of this is realized by shifting energy usage from peak usage rate periods to less expensive off-peak rate periods. These savings come in the form of avoided electric rate increases.

Dr. Browder reported that there have been two problems identified in the CPMD. The first is that the insulation on the relay wire may become compromised such that the insulation is penetrated and may come in contact with other circuitry components inside the CPMD. Typically, this has presented itself upon initial installation but some cases have had a delayed reaction. This can result in a rapid on/off situation. BTES removes these devices anytime we are performing maintenance where the meter is removed at a location with this version CPMD (A-5) and sends them to be reworked and converted from an A-5 to A-6 version. The second anomaly is that the relay on the CPMD can open without a command being sent. Dr. Browder underscored the fact that these meter collars are a first generation, custom designed electronic device operating over a 10 gigabit system and that BTES has sent all in stock A-5 and earlier units to be held for repair, installation of updated firmware and retesting. The work on these units will be completed and those units returned to BTES only when BTES authorizes.

CEO Report
Dr. Browder reported that BTES and the City of Bristol, TN have developed a billboard that will be displayed near the Bristol Motor Speedway during the spring and fall races touting our 10 gigabit community. A rendering of the signage was shown and discussed.
Board Comments:
Chairman Clarke inquired if there were any board comments with the following response:

Mr. Akard - None

Mr. McGeough - As it might relate to the Electric Meter Collar design, fabrication and operation, Mr. McGeough related his past Government procurement experience highlighting the Tennessee Valley Authority’s practice of promoting small, women owned, minority owned, or veteran owned businesses through their Supplier Diversity policy, he indicated that in the case of the meter collars, BTES has been working with, mentoring and developing solutions for the resolution of any issues.

Mr. Clarke - In conjunction with the development and approval of the new Open Door Policy, Mr. Clarke provided a copy of an Employee Opinion Survey for review and discussion. Mr. Clarke indicated that BTES has not conducted this type of employee analysis in the past and wanted to underscore that any BTES job satisfaction concerns or issues should be identified to allow management to take any necessary action. There was some discussion about doing the survey electronically or manually and it was decided that the manual completion on company time would provide better results. Mr. McGeough moved to do the Employee Opinion Survey, Mr. Akard seconded the motion and the board approved the motion.

Ms. Downs – Reported that while at a governance seminar at the APPA Legislative Rally, she learned that a number of utility boards post their adopted policies on the utility web page. Ms. Downs relayed that BTES has posted the policies on Directorpoint and questioned if those policies should be on the BTES website. Ms. McCall stated that posting the policies on the web page has been under review and BTES is discussing how and where those policies should be displayed. While no decision has been made, the posting of the employee handbook was also part of the conversation. BTES will review this issue and report during next month’s meeting.

There being no further business to come before the Board, the meeting was adjourned at 1:36 pm.

The next meeting is scheduled for Wednesday, April 17, 2019 at noon.

Respectively Submitted,

Gary McGeough, Secretary